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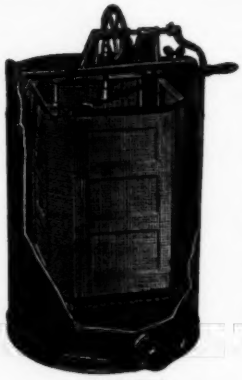

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American Bee Journal
Hamilton, Illinois

AMERICAN BEE JOURNAL

EDITORS: G. H. CALE, FRANK C. PELLETT, M. G. DADANT, J. C. DADANT

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Cover Picture—

Just sunset. No bees; no hives; no honey. After all the season's over isn't it? You got the new car, or paid the school another year, or kept the insurance going; or you set up a nest egg for the family until the next crop. Or did you? Anyway, it's time to stop and see that sunset, just once.

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5 gal. cans, 16 in carton, wt. 54 lbs.* Write for prices in carloads.	Y625	5.10	5.10	5.10	5.25	5.25
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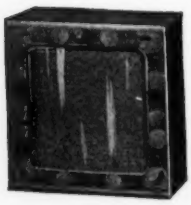
1 lb. jars, 24 in carton, wt. 21 lbs.	Y631	.84	.95	.88	.90	.90
2 lb. jars, 12 in carton, wt. 17 lbs.	Y632	.60	.62	.60	.62	.62
3 lb. jars, 12 in carton, wt. 21 lbs.	Y633	.65	.67	.67	.67	.67
5 lb. glass pails, 6 in carton, wt. 10 lbs.	Y635	.48	.56	.48	.56	.52

* Can only be shipped 16/c.



WINDOW CARTONS

These pink and green cartons with large cellophane window help sell section honey. We also supply comb honey shipping cases and cartons for shipping extracted honey too.

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L. C. DADANT

A BEEKEEPER'S VACATION

WHAT do you do on your vacation? Do you take a vacation? Many a side-line beekeeper will find a lot of rest, recreation, and pleasure in working with his bees. I have known one young beekeeper to spend his honeymoon visiting a larger beekeeper in order to work with bees. This may not have been agreeable to the bride, but the beekeeper himself probably had a real vacation because he was in love with work in the apiary.

The commercial beekeeper, however, who has had his nose on the grindstone from early spring until fall, who has worked night and day to get his bees into shape, and who has had to hustle to take off honey ahead of "plugged" supers, is ready for rest and relaxation by the time the last hive is ready for winter quarters. Such men who run hundreds of colonies know that something has been doing all summer long. What with lifting hundreds of heavy supers and handling full sixty-pound cans, working from daylight until after dark, rest and relaxation during the dull time of the year are necessary.

Dewey Beals takes his recreation on the Gulf of Mexico fishing for the big ones. (He does a lot of work down there too.) Bill Synott takes his pointer dog and gun and shoots quail for his wife and young Jim. Leroy Baxter goes duck hunting on the lakes in the Sand Hills of Nebraska. This year Leroy is taking his eighty-four-year-old father for a hunt in that region. George Seastream and his wife spend their winters in sunny California. Many other beekeepers go to Florida, Texas, Alabama, or California for the winter or at least for a part of it and rest and relax in the sunshine.

In the Dadant offices we find Frank Pellett out with his camera, photographing an owl or a chipmunk or perhaps counting the seeds in a head of clover or burying his nose in a hornet's nest. Sometimes the hornets resent it. Gladstone Cale takes his wife and spends extra time on some of his trips to bee meetings visiting old friends and making new ones. Carroll Swanson and his wife spend a few weeks in the Rocky Mountains showing the cow boys how to ride wild horses.

Roy, Bob, Maurice, Henry, and I look forward to the season when the mallard ducks come down from the north and when the cabin at Taylor Island is open and ready to welcome us on the first crisp day in late October.

Taylor Island is only some fifteen miles from Hamilton and is located in the Mississippi River. There, no buzzing telephone is at one's elbow. There, no pressing letter at hand that must be answered, and no important decisions to be made excepting to decide whether to lead the incoming duck one inch or two feet.

It is certainly queer what a change fifteen miles makes in the attitude that one has toward life. In the office everything is buried, and responsibilities are upon us. Down in the blind overlooking the Mississippi River, there seems to be nothing of importance excepting to watch for a flock of ducks to put in its appearance and try one's best to decoy them within shooting range.

Since I was five years old when I first hunted rabbits with my father and carried them for him, hunting has really been my chief diversion and my best relaxation. Fishing is wonderful too, but there is not the thrill in fishing that one gets from hunting small game. Queer isn't it how much better one feels after a few days' absence from business, how much easier things seem to move and how much better satisfied one is with things as they are.

L. C. DADANT.

P. S.—My wife says that hunting is a relic of barbarism. Undoubtedly she's right. Am I sorry that I am a barbarian?

EDITORIAL

HONEY PRICES

REPORTS from Canada show a decided rise in retail prices of honey with an average near double that which prevails here. Since conditions in Canada are not essentially different from this country the question arises as to why they are able to get a fair price for their product while beemen on this side are selling at depression levels.

The average retail prices for honey in eastern Canada according to the Western Canadian Beekeeper run from 12½ to more than 17 cents per pound while in the western provinces prices average from slightly more than 11 cents per pound in Manitoba in the heart of the sweet clover region, to 16 cents in British Columbia.

In view of the greater prosperity of the beeman in Canada it might be suggested that it is time for American selling organizations to stop the cutthroat price cutting competition and try working together to secure a fair price for honey on this side of the international boundary.

◆

MELANA SWEET CLOVER

MUCH interest has been manifested by our readers in the new annual sweet clover, called "Melana Clover" by its originators. This plant was developed at the Saskatchewan Experiment Station at Saskatoon. The past season it has been planted in many widely separated localities and its adaptations may soon be known. It takes a number of years for a new plant to find its place as there are few plants which do well everywhere.

In our first reports of this plant we were enthusiastic regarding it since it did so well in our test plots where it was kept free from the competition of weeds. When a field test was made under conditions which a farm crop must meet, the results were disappointing. There was a tendency for the weeds to overcrowd it and it appeared doubtful whether it would prove valuable under farm conditions in this region.

The past season it was planted with early oats by a neighboring farmer. Again it failed to come up to expectations although it survived the competition of the oats and came into bloom after the oats were removed. The farmer reported that the growth was too small to be of interest to him as a farm crop.

There are, however, some favorable reports coming in and it seems quite probable that in some localities it will prove to be a valuable addition to the crops already grown. From reports thus far received we gather that Melana is more valuable in the northern part of its range than farther south. It may prove to be better suited to certain types of soil than others.

It certainly appears to be a fine source of honey and all reports agree on that. If the farmer will accept it and include it in his rotation it promises to offer a rich pasture for the bees. The beemen should certainly encourage further trials of Melana clover.

◆

ENTOMOLOGY AND BEEKEEPING

A thoughtful beekeeper raises the question as to why beekeeping is so often treated as a branch of entomology. The bee is an insect it is true, but a cow is an animal yet we do not find dairying taught in the department of zoology in the college of agriculture. Entomology is primarily interested in the study of insect life and in the control of insect pests. Beekeeping is a practical subject like animal husbandry and always finds difficulty in adjusting itself to the entomological program.

In no other branch of agriculture is an attempt made to combine the practical production of a food product with the scientific branch of which it is a part. Agronomy is not treated as a branch of the department of botany. The management of the corn crop and the clover field is recognized as having problems not covered by the botanist and we accordingly have a place for farm crops as a separate entity. Even the fruits and flowers are recognized as horticulture rather than botany.

It would seem that the interests of bee culture

would be better served at no greater cost if recognized as an independent field as is poultry culture, forestry, and every other agricultural subject, instead of an unwanted foster child of the entomologist. Many of the entomologists would prefer to have it kept separate since the problems are so far removed from their field as to cause them unending annoyance.

♦

A CAUSE OF DWINDLING

THE September 15 issue of Australian Beekeeper contains an interesting report to the effect that nectar from field woundwort, (*Stachys arvensis*) was the cause of severe losses of bees. In that country the plant is known as "stagger weed" because animals feeding on it are likely to get the staggers. The population of the affected colonies dwindled badly and examination of the bees showed the presence of large numbers of yeasts. When the woundwort was plowed under the losses stopped at once.

This report is of interest here since this plant is common in many localities in the eastern states where it has been introduced from Europe. Pammel in his book of poisonous plants lists it as suspected of having poisonous qualities.

♦

OUR BIG PROBLEM

FOR half a century the efforts of the beekeeper have been centered on problems of production. We have bred bees which produce larger crops and we have changed our management and equipment so as to enable us to care for more bees. The average yield per colony is much larger than formerly, while the return per pound is smaller.

We now have a large number of men engaged in scientific research who are looking for ways and means to make still further increase in production. Our greatest need now is one of markets which will absorb our larger crops at prices which return a profit to the beekeeper. Aside from the American Honey Institute we have no agency devoted to marketing and with so many looking for ways to increase production our program is getting top heavy.

It is time for the beeman to put more pressure on finding new uses for honey, better distribution of his crop, more suitable containers, and more customers.

♦

BEEKEEPING AT THE CCC CAMPS

THE Iowa College of Agriculture held the summer short course at the Veterans' CCC camp at Denison, instead of at the college. The result was very satisfactory for all concerned. Several men at the camp are very enthusiastic beekeepers and they had something of real interest to show the visitors. In addition to the camp apiary they have bees of their own which are harvesting a good crop.

It was something of a surprise to find a larger registration at this short course than is usually the case when held at the college. Beekeepers came from all parts of the state and many of the largest operators were present.

Beekeeping works in very nicely with the program of such a camp. It is one of the few enterprises that men can start there and move to their homes when the period of enlistment expires. The work at Denison has been so successful as to attract wide attention.

♦

RECORD YIELDS

WE hear occasionally of an individual colony making a very high yield, but in most cases the amount is estimated rather than weighed, and we have little authentic information as to production. It would seem that our national organization should set up rules to follow and encourage an annual contest to provide such records. Poultrymen have laying contests conducted in such a way as to leave no question as to the record of individual hens. Certainly we should keep performance records of colonies of bees. It would be an easy matter to weigh the honey as removed from high producing colonies and record the weights. We would like very much to know how much honey the prize winning colony would be able to store in one season.

Littlefield's all-year hive. When honey is removed, the colony is ready for winter; no feeding or packing to be done.

ONE MAN'S METHODS

By GLENN O. JONES

Above, Roy Littlefield, of Exira, Iowa, one of the state's most successful honey producers. His honeyhouse (right) has every convenience for handling honey.

DURING the past few honey seasons I have had occasion to visit several times with Roy Littlefield, of Exira, Iowa, as he went about his work with the bees. Each time I went there I was more impressed by the fact that there was a beekeeper who had not followed tradition or custom, but who had worked out a system of his own, throughout his whole series of operations, with a degree of success which is attested by his being able to expand his holdings and to maintain his faith in the industry in the face of falling honey prices.

His methods are based on what he learned at college and the conviction that the bees offer a pleasant and profitable field of endeavor. They are a rare combination of those things advocated by others which have met with his approval under trial, adaptations of the methods and equipment of others to his particular conditions, and new methods and devices which are entirely his own.

His brood frames are different. Having the Langstroth length and the Quinby depth, they are loose hanging and are used with one and one-half inch spacing.

His hive is very different. It is about an inch wider than the Jumbo, used with ten frames and sets on a solid and permanent bottom board. A flat hive stand of creosoted lumber fastens to the bottom board and extends about three inches on all sides. From this extension of the stand to the top of the hive body is a good grade of asphalt paper which holds about three inches of leaves or other light packing material. Fastened to the stand and to the top of the hive body with strips of tin, and well nailed, this packing becomes a permanent and year round part of the

hive. He finds an advantage in that the bees utilize the outside combs for brood at a much earlier time than would otherwise be the case and what could be finer than to do your packing ahead of time, out of the way of the bees, and have no more worry from that source for several years.

His food chamber is different. Using a three-inch frame, it has a zinc queen excluder fastened permanently to the shell. The shell is so formed that the excluder inclines upward at the front and allows an entrance, used the year round, between the hive body and the food chamber. Due to its shallow construction it does not allow the bees to completely desert the queen in cold weather, when it provides the few extra pounds of food so often needed, and in the storing season it very effectively keeps the pollen out of the surplus chambers.

His inner cover is of the conventional design with provision for an escape.

His outer covers are different. Made with metal covering, they have but three sides, the front being left open. The sides and back are about two inches deeper than the shallow food chamber so as to allow room for about two inches of top packing and still fit down tightly against the packing on the hive body.

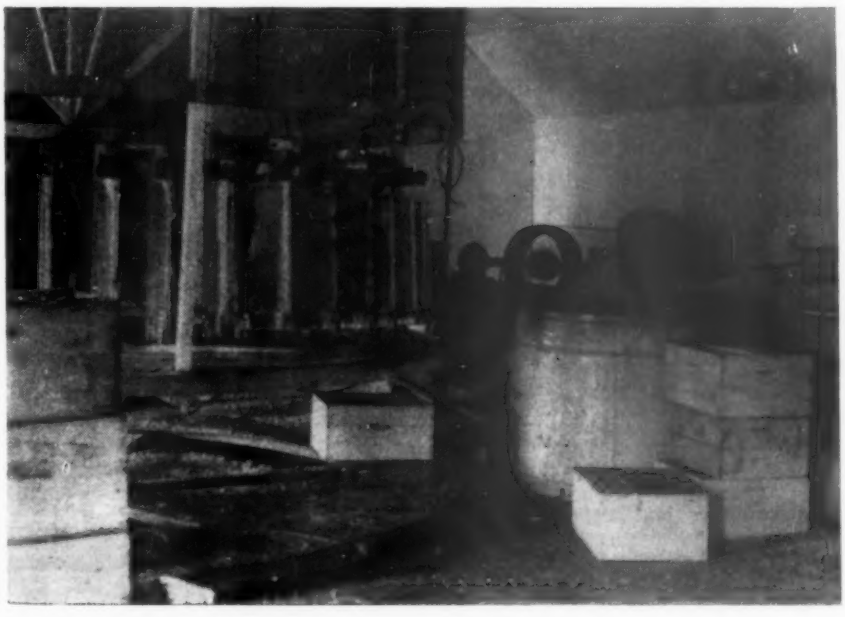
For surplus storage he uses the regular ten-frame Langstroth hive with the number of frames reduced so as to get fatter combs for greater ease in uncapping.

Practically all colonies are run exclusively for extracted honey. The limited amount of comb honey produced is in the form of cut comb taken from the regular size extracting frames which are provided for this purpose with thin surplus foundation. Wrapped in cellophane and placed in a cardboard carton, it is distributed through the local stores and to those who furnish the yard locations. What better builder of good will could be found than a few pounds of fine comb honey prepared in an attractive manner?

In the interest of better relations between himself and those who furnish his locations he has divided his holdings into many small yards, finding that less trouble is likely to be caused in swarming or other seasons by bees interfering with the normal operations on the farm. Nor is it necessary for his bees to make long flights to completely cover the available pasturage.

To properly care for his crop and equipment Mr. Littlefield has constructed a honey house of almost fireproof construction. First and second floor and pillar construction are of reinforced concrete, easily cleaned and not easily damaged. The main building, twenty by sixty-four feet with an ell twenty by forty feet, has a grade entrance on both floors to facilitate handling of both honey and equipment. Transportation to and from the yards is furnished by a pick-up truck which is stored at the honey house.

Necessarily, with approximately a thousand colonies, scattered over an area larger than a county, no lost motion can be allowed in seasonal operations. With only one helper, all colonies are brought up to the main honeyflow in as near uniform condition as possible so as to allow rapid and uniform supering.



Storage tanks (above) in basement hold a large volume of honey. The merry-go-round (left) enables the operator to uncap rapidly and saves time and labor in handling combs.

When sufficient sealed honey is available, operations are stepped up and two additional helpers are employed. With four men available, two are charged with the uncapping and extracting and two with taking the supers off the hives and delivering them to the honey house. To relieve the beekeepers' chief malady, the truck is equipped with a set of specially built rollers to receive the supers at the rear and allow them to be pushed to the front of the truck with little effort. At the honey house the truck is backed up to the door so that the supers are delivered onto another set of specially built roller tracks and pushed to the extracting machinery.

To bring the frames into proper

position for uncapping he has devised and constructed a huge "merry-go-round" with a capacity of sufficient frames to fill an extractor and containing reversible holders for each frame so that the frame can be completely turned around without being removed from the holder and without interfering with the frame on either side. Underneath and extending entirely around the "merry-go-round" is a metal dripping pan which drains into the chute which takes the cappings. The operator is provided with a seat immediately opposite this chute and is able to bring the combs into line and quickly uncap them without lifting or loss of time.

This year he has discarded his uncapping knife and is using an implement of his own design and manufacture. Operated from a motor within the "merry-go-round" is a flexible shaft which has at its extremity a device consisting of a coil spring of the proper size and length and holding a large number of cotter pins of uniform size and so mounted as to operate on the principle of the common hammer mill. Being loose mounted, they are not inclined to gum up and they do a rapid and thorough job. A foot lever is provided to help in lifting the device so as to relieve unnecessary strain on the hand and arm of the operator. When sufficient frames are prepared they are transferred to the extractor which is ready (he has two forty-five frame radials equipped with Rosedale comb savers) and from there they go into the storage rooms on the same floor.

The storage room for empty supers is divided by a partition down the middle which is bee tight. When one side has been completely filled then the windows on that side are opened and the bees from the home apiary are invited to help themselves. Needless to say, a grand time is had by all. In this connection it might be well to say that Mr. Littlefield is now using the resistant stock furnished through the Iowa Beekeepers Association and feels that the decrease in the number of foulbrood infected colonies will make it a very profitable investment.

With all the honey containers on the lower floor no lifting is required at any point of its travel. Cappings go directly down their special chute and are delivered about a foot or so below the surface of a tank about eighteen inches across and four feet tall and which contains at the top a coil carrying sufficient steam to barely liquefy the wax. In order to leave this tank the honey must travel to the bottom and pass behind a baffle plate where it travels up and out a spout near the top and into the next tank in the series. At this time there is not enough capacity in this first tank to handle the honey from the extractors as well as the cappings and a change will probably be made next year to one of about three by five feet so that the greater part of the wax may be taken care of before it starts through the settling tanks. The four settling tanks used are each of about thirty-five hundred pounds capacity, each has a baffle arrangement which forces the honey to travel nearly to the bottom and back up behind the baffle and each set enough lower than its predecessor so that there is a continuous flow from the start of operations to the spigot in the last tank without any pumping or lifting.

At the time of my last visit the tanks were full and I could find but one strainer being used in the entire line. It was a single cloth in the last tank. Gravity is relied on to clear the honey and its efficiency was well shown by the clean honey drawn that day from the last tank.

To complete the labor saving chain, the cans are filled on a scale which is fitted with a section of roller conveyor and which in turn connects directly with a similar conveyor running conveniently through the warehouse and onto the loading platform. With handling reduced to that required in removing the cans for storage at the proper point and placing them back for loading out at a later date he has removed from beekeeping a great deal of backache.

A "hot-room," approximately four by six feet, is conveniently located on the lower floor where granulated honey may be liquefied by turning the cans bottom up over a pan which drains into a heated tank outside the room. Temperatures are checked by a thermometer inside a small double glass window and regulated by valves which control the flow of steam through the coils.

Among Mr. Littlefield's equipment, and worthy of mention, is a steam boiler of about three horse capacity located in a small basement room and fired with gas so as to eliminate loss of time through its care, a work room where equipment can be assembled and such items can be made as are not offered in the catalogs of the supply houses, and an office which shows but little wear.

Possibly some day we may develop a bee that will store the honey in the can. Until then little can be done to further lighten the labor in this plant.

Atlantic, Iowa.

— ♦ —

HONEYCRISP

This candy comes from a Chicago shop and adds to the number of candies in which honey is an important ingredient. It is variously reported that honey is to be found in appreciable amounts in thirty to forty widely distributed candies. The died-in-the-wool honey candies however are yet few in number. Most noteworthy is the Honeypot candy developed by Olive Watson (Mrs. Lloyd R. Watson). Honey works well in fine candy and much could be done to increase its use in this field.

CONTINENTAL CAN PLANS FIFTEEN MILLION EXPANSION

THESE directors and New York officials group up for a camera shot, just before a survey of the Chicago units in considering expenditures in a $15,000,000 nation wide expansion program. Here they are:

Left to right, front row: J. P. Louderman, Sales Division; J. L. Heinlein, Factory Manager; Sherlock McKewen, Sales; W. W. Hodgson, District Manager of Manufacture; H. F. Bayer and J. J. Engleman, Ass't. District Managers of Manufacture; E. B. Dullinger, Ass't Factory Manager.

Left to right, second row: H. Bartow Farr, (Miller, Owen, Otis & Bailly); M. S. Sloan, (Missouri-Kansas-Texas Railroad Company); S. J. Steele (Executive Vice President); J. F. Hartlieb (President); C. C. Conway (Chairman of Board); O. C. Huffman (Chairman of Executive Committee); F. J. O'Brien (Vice President); F. G. Searle (Vice President); J. B. Jeffres, Jr. (Secretary and Treasurer.)

Left to right, third row: H. A. Goodwin (Advertising Manager); L. R. Dodson, (Assistant Secretary); J. S. Snelham, (Vice President); A. V. Crary, (Vice President); Director Norton Conway (Norton Conway & Company); E. J. Connor (Manager General Line Can Sales); H. A. Fink (Supervisor Packer's Can Factories); J. E. Baldwin (Assistant Mfgr. Packer's Can Sales); George Muth (Manager Commercial Research).

The company plans periodic visits to its manufacturing and distributing centers. Continental now has forty-eight plants in the United States, Canada, and Cuba. The expansion program will be based on the information these contacts disclose.

American producers of tin plate do not share the fears expressed in some circles that this country faces a shortage of tin because of doubt as to the future control of the Netherlands East Indies and French Indo-China, both of which have rich tin ore deposits and have supplied this country with a substantial part of its tin. Whoever the new rulers of these regions may be, tin will still be an export commodity actively seeking markets.

—— ♦ ——

THE HIVE ENTRANCE IN COMMERCIAL BEEKEEPING

By R. SELWYN WILSON

ENTRANCES to beehives should be called, according to present uses, top, bottom and middle. The top entrance is ordinarily above all the frames of comb and often provided for by the construction of the lid. The bottom entrance is below all the frames and is provided for by the construction of the bottom board. The middle entrance is usually at the junction of a two-story brood nest, or between the brood nest and a food chamber.

In my experience, the middle entrance gives the most honey and wax per colony at the least cost. The bottom entrance is the best for the production of section comb honey, and the top entrance is only suitable for wintering.

The bottom entrance causes a draft through the hive which influences the queen to move upward with her brood rearing. It also prevents sufficient storing of honey in the brood nest for winter. However, when the bottom entrance is used in connection with the small hives in comb honey production, the effect of it is an aid.

When standard 9⅛ inch combs and a bottom entrance are used, the average strength of the colonies will be less by at least 1½ to 2 pounds of bees to the colony, reducing the average crop of either extracted, cut comb, or bulk comb honey, from 18 to 25 pounds, depending on whether you figure the crop on spring count or fall count.

For extracted honey production on a spring count basis, the different types of hives compare about like this: standard 2-story hives, 75 pounds; Modified Dadant and Jumbo about 90 pounds.

After a hard winter and a late spring, a much greater contrast is shown in favor of the middle entrance, especially when based on fall count. I have a shallow food chamber on my hives which insures brood in solid sheets in the regular brood frames, producing larger colonies for the first honeyflow in northern localities than any other type of commercial hive. The bees also work with fine morale in the supers. Hives any deeper than Jumbo should never have a bottom entrance.

The middle entrance hive could be worked well on the two queen system if desirable, but I prophesy most honey in outyards will be gathered by the one queen system with large brood frames and upper entrances. The principal advantages of a deep hive with a middle entrance are in the crop and in the fact that the queen stays in the brood nest better. There is an abundance of honey stored for winter and better wintering results. I consider the middle entrance best for northern localities except where section comb honey is produced exclusively.

———

Wendell, Idaho.

WENDELL L. WILLKIE BEEKEEPER

A good democrat helped get these pictures of Wendell L. Willkie, just now the nation's number one beekeeper. Stories have it that, in his early days, Willkie's family regularly bought their sixty-pound can of honey for winter consumption and the idea of farm balance somehow worked itself into the Willkie complex so that his Indiana farms now have their bees for pollination.

On the Burkemeier farm, near Rushville, bees are maintained to help the seed set of clovers. The colonies originated from southern package bees, and were established by Robert Tatlock, who is in no small measure responsible for the bees on all the farms. On the Brown farm the bees also serve for pollination and furnish section honey to the tenant to be sold at the farm.

Willkie (left) Mrs. Willkie (below) taken by Dale Stout, 12 year old son of Perry Stout, at the Rushville reception.

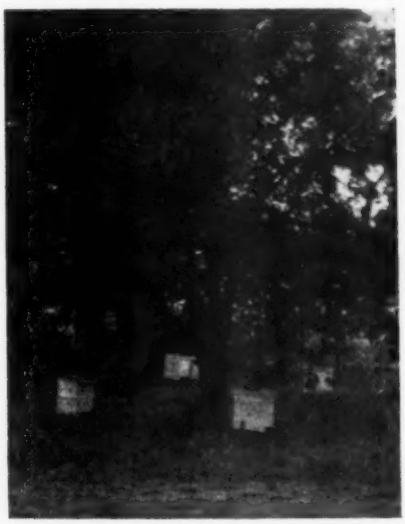
Enthusiasm for farming is an outstanding characteristic of the republican nominee. The unposed picture of him on this page was taken by Alfred Israel, of Rushville, Ind., as Willkie looked over the fence at his cattle on the Berkemeier farm.

Born in Elwood, Indiana, in 1892, Willkie is just forty-eight. The law, not farming, is the family background. He likes to fight for whatever he believes in and that spirit led him inevitably to his present place in our national affairs. Politically he was a democrat until he voted republican in 1936. He accepts principles from both parties.

"Fortune" (April, 1940) describes him as a man "with a bucket, full of real water, drawn from a real well,

Part of bee yard on Willkie farm, tenanted by Louis Berkemeier, Rushville, Indiana.

(Left) Robert Berkemeier, 14, by Willkie apiary. (Below) Portion of yard on Charley Brown farm.



with a real windmill, and not too far off." Our interest in him aside from politics, centers in his real love for the farm and his sense of proportion which makes him see the place the honeybee has in the farm scheme.

He is not the only man now high in the politics of this continent who champions our beloved insect. Garner near Uvalde, Texas, is reported to have quite a number of colonies of bees. Harry Byrd, in Virginia, uses bees for orchard pollination. Governor Stark, of Missouri, was one of the first orchardists to establish commercial apple trees, interspersed with selected pollen varieties and dotted with bees for pollination, a practice still followed by him. Lieutenant Governor Mac Gregor (now deceased) of Brandon, Manitoba, had over 500 colonies for commercial honey production and secured paying crops in that province for a number of years.

Robert Tatlock in bee yard. He started the Willkie bees, and is a comb and extracted honey próducer himself. His daughter, Irene Richardson, and Mr. Tatlock secured the information given here about the Willkie bees.

I DISAGREE WITH MR. KILLION

WHEN Carl E. Killion says (A.B.J. Sept. 1940, p. 410) "I like snow-white wood in all my sections," he is expressing a legitimate personal preference. But insofar as the statement implies that only snow-white wood is suitable for sections, **it is perhaps not in line with generally efficient honey production.**

That sections should be clean goes without saying. That the wood must be white is like saying that only white labels should be used on jars of honey, or that a person is neatly dressed only if his clothes are white. The fact is that a dark colored section, contrasting with the white honey cappings, would show up the honey to much better advantage than the white section that offers no contrast.

Consider for a moment what might happen to a comb of honey built in a mahogany section. Naturally you could not afford to sell those sections of honey at ten cents each. But you could do pretty well with them at a dollar each, to the elite trade. I was not around when sections first came into use, but it seems likely that white wood was chosen because it was the most available at that time. Since then it has become less available. There have been caustic comments on the practice of cutting down basswood trees to make section boxes, thus reducing bee pasturage. The same objection would apply to the use of wood or other nectar producing trees such as poplar and several varieties of gum. But so far as color is concerned, black gum would be just as good and probably better than basswood.

That statement is based on experience and observation over a ten year period. During that time, in which I operated from 200 to 300 colonies of bees, producing both extracted and section honey, and buying considerable honey besides what I produced, I never had a reasonably neat-looking section rejected, or even questioned, because the wood was dark. I have known other beekeepers to use sections made from wood that was far from snow-white, and never heard of any question being raised on that score.

On the other hand, it is not uncommon for beekeeper or packer to use expensive colored wrappers, some of which cost almost as much as the section itself, to cover up the whiteness of the wood and show the honey in effective contrast.

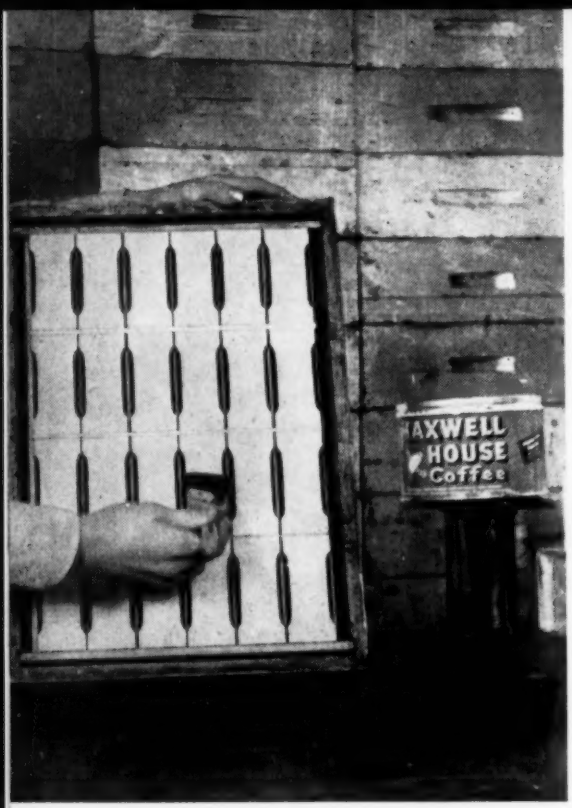
Another statement that Mr. Killion makes is entirely contrary to my experience. It is to the effect that the more honey you can get into a section, the better it is. One thing, and almost the only thing, on which I found retailers of honey unanimous, is their refusal to pay an extra price for extra weight—that is, weight above the normal average for the grade that they are handling. Their argument is that they cannot get any more for it. If they make a separate grade of it, the customer will want to know what is the difference. When they explain that the difference is in the amount of honey, the customer too often goes away without buying either kind.

Naturally, honey buyers will take the heavy weight sections readily enough when they can get them for the same price as for medium or normal weight sections. Mr. Killion says, "This is especially true of jobbers." We might have figured that to be the case even if he had not mentioned it. Such jobbers evidently are not in as close touch with the retailers as they might be.

Neither the retailers nor the householders who buy honey to eat will kick on the over-weight section. The kick comes afterwards when you try to sell them normal weight sections. If you ask the same price some people will stop buying. Sales become slow. The market is reported "very dull." If you reduce your price—well, your price is then reduced. And how are you going to get it back up again?

Variation in the weight of sections of honey is unavoidable. A number of grades have been established to promote orderly marketing of these various weights. Sections ought certainly to be made uniform in size. But it is not sound business to assume that the largest possible section of honey is the most desirable. Overweight sections are not only not conducive to orderly marketing, but may have a distinctly weakening effect on the market.

Walter H. Hull, Virginia.



Painting the sections with hot paraffin. A two inch brush works very well.

COMB HONEY—PART V

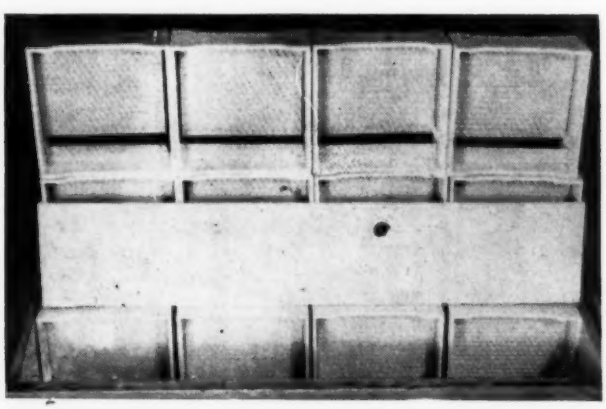
Filling and Preparing the Supers

By CARL E. KILLION

PROFITS in section comb honey are often reduced because of the "cripples," sections which are not fit for market. Extreme caution should be used at all times to reduce the number of cripples in comb honey. Sections having comb fastened to the separator, comb extending beyond the edge of the section, or drone comb built after the foundation has fallen out are examples of comb honey cripples. The careful fastening of the foundation will eliminate more cripples than any other precaution it is possible to take. If foundation is fastened securely, it is surprising how much abuse a section will withstand before the foundation is broken.

The air-way super has already been described in detail. [A. B. J. July, 1940.] Supers are now ready to be assembled. Separators are in a handy place on the table; the small splint-like sticks should be placed on the left, the springs on the right side. A hive tool and some pointed tool such as an awl or broken ice pick are all that should be needed for filling the super.

With the super on the table, the sections are slid to the side near the operator, leaving the open space on the far side. A heavy separator is dropped in this open space and a row of sections is slid against it. Thin separators are then used between the rows until the last opening next to the super wall where another thick one is used. Three small sticks or wedges are then inserted across the top of the super between the rows of sections at right angles to the separators. The first two sticks go in without any effort, but the last one (this is the center one) is a little difficult until one learns the proper technique. These small sticks should be sorted according to thickness to allow for any possible variation in the openings. After a glance at the space a stick is selected, one that is not too tight, just a snug fit. The two sections opposite this opening on the opposite side of the super should be grasped to allow room for the starting of the stick in that end, then the next two should be separated, at the same time using a finger to direct the stick into the opening. It may seem difficult to place these sticks in the first super or two but it is very simple after one gets the knack of it. The super springs, two on each side, should next be inserted. The ones on the opposite side are placed in first. They are placed equally distant from each end or where the wood of the sections come in contact with the separator and not in the center



A plain, unscalloped separator is used.

Inserting the center, or last, small stick between tops of the sections.

of a section, as this might bend the separator and damage the finished comb. The bend of the spring should rest against the separator and the ends or feet against the inside of the super. The hive tool is used to pry the sections over so that the springs may be pushed in on the near side. Occasionally one of the small sticks may drop a short distance below the tops of the sections. The awl or ice pick is used for prying it up evenly. If the tops are smooth, less propolis will be deposited on them. To be sure of an even surface a heavy separator may be used edgewise and each row should receive a slight but firm press. The supers are placed out of the way until the operator is ready to paint them with paraffin.

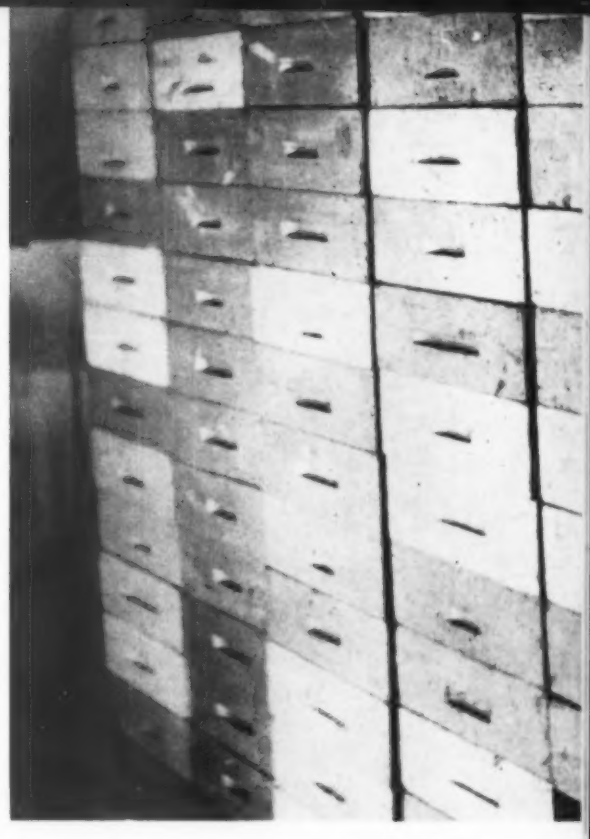
The paraffin can be melted in an empty coffee can or five pound pail and should be heated to a temperature of 350 degrees Fahrenheit, a lower temperature causes the paraffin to go on too thickly and a higher temperature tends to darken the wood. There is also the danger of the paraffin igniting at too high a temperature. The only objection I have to painting with paraffin is the danger of fire. Every precaution has been used to prevent a fire at all times, but double precautions should be taken at this step. I keep a fire extinguisher within reach and the garden hose is attached in case of need.

A brush about two or three inches wide is used in painting the sections and as it does not take long for a brush to get out of shape if allowed to rest directly on the bottom of the pail in the hot paraffin, a piece of screen may be folded a few times and placed in the bottom of the pail to prevent the burning of the bristles. Better still is to drill a hole through the brush handle and run a wire through it to form a sort of hook so the brush can be hung inside the pail when not in use to keep the bristles straight and off the bottom of the pail.

When the work of painting is started, a super of sections is placed on end on the table with the top end inclined slightly backward. At this point it is a good practice to brush the tops of the sections with a broad table brush to remove any possible dust particles. The sections are painted one row at a time, the last operation on each row being to stroke lightly crosswise in order to cover all joints. The super is then turned and the bottom painted in a similar manner.

Before starting the operation of painting the sections with paraffin an estimate should be made of the number of colonies to be used for comb honey in order to determine the number of bait sections needed. It is only the first super given a colony which contains bait, one bait for each super. They are prepared in the following manner. One section containing foundation is removed from near the center of the prepared super and in its place is inserted a section which contains drawn comb, the honey from this comb having been extracted or robbed out by a few colonies in one of the outyards. Two bait sections may be used in each bait super but in the last few years I have been using only one, for the reason that all baits are discarded or thrown on the melter. NEVER DOES A BAIT SECTION GO TO MARKET AS COMB HONEY.

The supers containing the bait section are painted with paraffin in the same manner as the other supers and are then stacked where they can be reached easily as they will be the first used. All the finished supers are then covered with a sheet of heavy cardboard to keep out the dust.



Stacks of bait section supers, ready for the flow.

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AFB CONTROL APPROPRIATIONS

According to an announcement April 17 by the Wisconsin department of agriculture and markets, 23 counties have reported appropriations totaling $3,800 for bee disease control this year. This sum will be matched dollar for dollar by the department.

Dane and Douglas counties each reported appropriations of $300, the highest sums reported thus far, according to E. L. Chambers, chief of the plant industry division.

Shawano county has made $250 available for bee disease eradication. Counties reporting $200 appropriations were Barron, Brown, Clark, Columbia, Fond du Lac, Kenosha, La Crosse, Manitowoc, Rock and Sheboygan. Monroe and Outagamie counties each appropriated $150.

Counties reporting appropriations of $100 were Marathon, Pierce, St. Croix, Waushara and Washington. Dunn, Taylor and Vernon counties each raised $50 for bee disease control.

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HUNKS AND CHUNKS

In his article on hunks and chunks of comb honey, Wilbur Sharon certainly makes a jump from a few homely names to the dumps and the cesspool. I have marketed many hunks and chunks and have never heard a customer make a disparaging remark about these names. I am sure it never occurred to me that anyone would associate them with filth. Even reference to a "chunk" of meat does not necessarily remind us of a filthy product.

These are homely names and perhaps weren't coined by the recent originators of the product because many years ago the literature mentioned chunk honey. A more dainty name should be found for this tempting sweet, comb honey, but I do not think the present names are a disgrace or that they warrant disgusting comparisons.

Geo. L. Abeler.

WITH this crew of helpers Emerson Long operates bees in western Ohio. That is he does in the summer time. In the fall at least part of his hives go over into Pennsylvania for the buckwheat flow. And in the late winter he spends considerable time down in Georgia raising bees and queens.

One of the most extensive Ohio beekeepers, Long is also one of the most respected by fellow beekeepers. When a fellow makes his own outfit run smoothly year in, year out, there must be lots of pointers others could pick up.

His talk on his quadruple packing case was a high light of the Ohio state meeting at Kipton last summer. Packing cases are used quite a bit by Ohio beekeepers, while in similar latitudes further west they are seldom seen.

Long attributes no small part of his success last winter and spring to the hundreds of pounds of queenless bees brought up from the south. A "shot in the arm" for those dwindling colonies in the spring does a lot to pull them through for a honey crop.

A WESTERN OHIO BEEKEEPER

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GATHERING PLACE OF DRONES

Reprinted from "The Bee-Keepers' Review," Aug. 10, 1893, page 231.

AS it is yet a moot question whether drones congregate in certain spots and there hold high carnival, as it were, while they await the advent of a queen who would a wooing go, I think I will attempt to throw a little light upon the subject.

There is a spot on a hill about a hundred feet high and not more than 300 yards from where my bees are located, where, for almost as long as I can remember, drones have gathered in the afternoon. The air would be full of them and the buzzing they would make was something that could be heard for quite a distance away. Their buzz was more musical, if I may so express myself, on this occasion than when they were flying about the apiary. We are all quite familiar with the buzz of these lazy fellows when they are near their own doorstep, but I should judge, from what I have seen in the bee journals, that few have heard drones enjoying a dizzy dance in mid-air. It is truly a dance of death to many of them, as after results often prove.

This place I speak of is in what may be called the thermal belt on the hills to the north of the apiary. I should think that the several currents of air that circulate about the hill and the little valleys formed by these hills, meet here and form a gentle whirlwind which, while warm, is inviting to the drones. I am the more convinced of this belief for the reason that there is another spot where the same sort of a drone picnic ground is maintained. This second place is at the southwest base of the aforesaid hill. The spot is noted for being one where a warm current of air is to be encountered at almost any time. Persons who have been riding in a vehicle perceive the change of air as soon as they strike this spot.

Many a time I have watched the drones thus enjoying themselves; at first I thought they were young bees, but observation proved that they were male bees.

This question presents itself to me, does the young queen, through natural intuition, fly to those localities where the atmospheric conditions are such that they are a safe place for the two sexes to carry on their connubial relations? It seems to me that these queens know this; that the drones will be at a trysting-place appointed by Nature, and there the queen goes, provided she is not stopped by some lusty drone who attacks her on the "king's highway," as it were. It may be fellows like this have been seen assaulting queens while flying about the apiary, who knows?

By W. A. Pryal
North Temescal, California.
March 6, 1893.

WHAT ONE WOMAN DOES WITH HONEY

By STELLA LAUNER GILL

The originator and manager of "Charlotte Charles" and a display of products. (Photo courtesy New York Herald-Tribune.)

IF you are interested in delicious foods and happen to be in Chicago, do not fail to go to the third floor candy department of Marshall Field & Company. Look for products made with honey—plum puddings, small and large, fruit cakes of various sizes, honey ginger sauces, labeled with bright colorful labels, with the trade name "Charlotte Charles." The most intriguing thing about these articles is the way in which they are dressed up in dainty paper cups, air-tight, tin and glass containers, bright cellophane wrappings and ribbons. I have tested the keeping qualities of the little honey cakes. At present, a year since they were made, they are as fresh, tender and delectable as when they came from the oven. Indeed, they are better, because they have mellowed and ripened.

The history of the recipe for these little cakes made with honey is most interesting. Years ago the recipe was in the possession of Charlotte Charles, who was a cook in the household of Count Antoine Drouot, a general in the French army. This cook went with Napoleon to Elba, and her little cakes were the Little Corporal's favorite sweet. She made them many times for him. The Drouot family inherited the recipe when Charlotte Charles died. The woman who now owns the recipe lives in France, but her sister lives in Evanston, Illinois. This sister used these recipes for twenty years in cooking for her family and friends.

When her children were grown, she missed the joy of making good things for hungry children to eat. Cooking with honey had become her hobby. She decided to ride her hobby, and now she sells her products in all the big cities. Last fall she turned down orders she could not fill. Her well-equipped kitchen has baker's ovens, a large mixer, cans of dried fruit and nuts, cartons of containers, fancy wrappings, and bags of spices, flour, and cans of honey. She not only makes her products taste right, she makes them irresistible to look at.

Her honey sauces are delightful. How would you like to pour on your ice cream a peppermint sauce light green in color, thick as butterscotch with plenty of honey in it? Her French chocolate sauce blends the flavors of honey and chocolate. Her French vanilla amber sauce, the color of honey, is excellent over her desserts and ice cream.

The woman who calls herself "Charlotte Charles" started her venture with her fruit cake. She made several, let them ripen for a time, then went to a food buyer of a big store. Her order from this buyer was 1200 pounds. Her second order at another store was 875 pounds. The third store wanted 300 pounds. This was six years ago. Now she has her own bakery in her home, with well-trained helpers. Her son is manager and assistant. Over 10,000 pounds of fruit cake orders, and 25,000 individual plum puddings seem like good business for autumn delivery for the holiday season.

Her charming, earnest manner helps to place her orders, but the acid test of sales of food products is the eating thereof. That, and the way she packs and decorates her products is the secret for the repeat orders, and for orders which she cannot fill. She has made a good business for herself and for her son, because she has something to sell. The accompanying picture shows "Charlotte Charles" with her manager son. She holds a colorful tin box, containing the little cakes made from the old recipe. An individual plum pudding is in the foreground. Jars of honey sauce are also in the picture.

I asked "Charlotte Charles" if she would like to give readers of the American Journal a recipe. She suggested the following:

Pain d'epices (Spice Bread)

17½ oz. flour—500 gr.
5¼ oz. powdered sugar—150 gr.
14¼ oz. honey—400 gr.
¾ oz. soda—25 gr.
1 cup milk
Anise or other flavoring 1 gr.

Changed to our measurements, the recipe is, as follows:

Flour 4¼ cups plus 2 tablespoons
Powdered sugar 1 cup plus 1 tablespoon
Honey 1 cup plus 3 tablespoons
Soda 1⅛ teaspoon
Milk 1 cup
Anise ½ teaspoon

Melt sugar and honey in milk. Heat until hot (but not boiling). Add sifted dry ingredients. Stir well. Pour into pan. Bake slowly in slow oven, 275°. Do not jar oven or open door for at least half hour. Bake from one to one and one-half hours.

I asked "Charlotte Charles" why Europeans like hard compact cookies, cakes and breads? She told me that it is the thing over there to daintily dip one's bread or cake in coffee, tea or chocolate. In America we call it "dunking."

BUILDING LARGE COLONIES

By H. J. RAHMLOW

WHILE most beekeepers have come to the conclusion that the "beekeeper's year" really starts in the fall, there are many of us who feel that it starts even earlier than that. The condition of our colonies in the spring of 1941 will depend largely upon what we do, not only this fall, but this present summer; so the "next year" really starts in June or July.

A statement made by Frank Pellett on page 271 of the June issue might easily be misunderstood by northern honey producers. It may be perfectly feasible for the producer of package bees to "remove six pounds of bees every ten days under favorable conditions, until a total of 35 pounds has been procured, and yet leave the colony normal." Yet, there is plenty of evidence that the northern honey producer cannot divide his colonies and still receive the maximum honeyflow or have strong colonies the following spring.

Last fall may have been "unusual" in that we had a long period of warm weather which permitted brood rearing, with no honeyflow or pollen coming in. As a result, our colonies were fairly strong in bees but low in pollen and stores.

In May I visited a young beekeeper whose twenty colonies were very weak. He admitted that he didn't expect much of a honey crop this year because of their condition. On questioning him, I discovered that he had increased from twelve to twenty colonies last summer, and in addition, lost a few swarms. Result —a low colony population in the fall. **We cannot expect strong colonies in spring from weak colonies in the fall.** That is a good statement to remember.

Last July we made ten two-queen colonies by giving queen cells to nuclei in the top supers. The result was very interesting. In the fall we decided to move four of the best young brood nests (still in the top super) to another yard, so as not to lose any field bees. Even as late as the middle of March this spring, these four colonies appeared in fair condition. Yet later, they dwindled to a point where about May 1 they were not worth carrying over so we used the queens for requeening.

The remaining six colonies with two queens were treated in a way that proved highly satisfactory. Deciding against dividing the colonies, we simply killed the old queens and united the brood nests. This resulted in very strong colonies with plenty of pollen in the fall. This spring these same colonies were boiling over with bees at this writing, are the kind about which we say, "We wish all our colonies would do as well as these."

We think we have solved the supersedure and package introduction problem. For the third consecutive year we have used the method recommended by Dr. C. L. Farrar, known as the "spray and direct release method" of introducing package bees. This method, together with the fact that we think we have found a strain of bees of high quality which do not supersede as badly as some other strains we have had, and by watching to see that there is pollen available when they are installed, has resulted in 100 per cent successful introduction.

We install our packages on drawn combs and this spring had unusually good results from the use of about four frames of late fall honey which we saved over for feeding. How much cleaner and cheaper that is than feeding sugar syrup.

E. L. Sechrist writes in his article, on page 268 of the June issue, that a package installed on sheets of foundation or on full combs of honey is in balance and the queens do not supersede. We do not see how it can be a good practice from the standpoint of obtaining strong colonies for an early honeyflow.

This spring some packages which came in our shipment were installed for a young lad who has become interested in beekeeping. They were hived on foundation. Six weeks after installation or just before the beginning of the white clover honeyflow, our packages, on drawn comb, were almost twice as populous in bees as were those we installed on the foundation. Any practice which retards the laying of the queen must retard the development of the colony. The problem will, therefore, have to be solved in some other way than by such methods.

We have come to believe that beekeepers are inclined to look at the immediate effect of a certain practice on honey storage and to overlook the far-reaching effect. Let us take the method of top or bottom supering as an example. By this we mean, of course, placing empty supers on the top of the colony as compared to placing the empty super directly over the brood chamber underneath the honey supers. Our observation is that, by giving empty drawn comb directly above the brood chamber, we are far more likely to relieve congestion of honey in the brood chamber itself, at least during a prolonged honeyflow. Top supering may be all right in certain locations where there is a heavy honeyflow of short duration. However, if the **brood chamber is filled with honey,** restricting the size of the brood nest, it cannot help but affect the size of the colony in the fall of the year. We cannot agree with those who say that it is not necessary to produce brood in midsummer because such bees are worthless. It goes right back to our first statement that you cannot have a strong colony in spring from a weak colony in the fall.

Small brood chambers may give us a heavy storage of honey in the supers, but there usually is trouble later on. For example, one old and experienced beekeeper has been arguing that he gets his best storage of honey in small hive bodies such as an 8-frame hive. This same man made the statement this spring, "Our loss from starvation was far greater than we liked." He also had many weak colonies this spring with much dwindling.

Why were such heavy losses reported in various sections of the country this spring? The U. S. Government report stated that in some sections the losses were very high. Good beekeepers in Wisconsin had no greater loss this year than in any average year. Our own loss was one per cent, or rather one colony lost out of 110 colonies, not counting the four nuclei we mentioned above. There are perhaps two good reasons for the loss—starvation and weak colonies. We maintain that anyone who loses more than from 5 to 10 per cent of his colonies each year has considerable room for improvement in his methods.

Neither do we feel that the cold weather was the cause of the winter loss. In Wisconsin we have plenty of cold weather. For ten years we have wintered outdoors with just a roofing paper wrapper, and an inch piece of insulite in the cover itself for top protection. We do not use any of the new fads, and we worry about winter losses in the fall and summer, when we can still do something about them.

Madison, Wisconsin.

THE BREEDING OF IMPROVED BEES

THE importance of the honeybee in modern agriculture is a growing consciousness in agricultural research circles, and it is in keeping with present trends, that our program has a period set apart for definite investigation of honeybee investigations and developments.

To my mind no phase of honeybee husbandry offers greater promise of future betterment to beekeepers in particular and agriculture in general than that of honeybee genetics. We habitually call ourselves bee breeders but in strict scientific definition are we truly bee breeders or are we really only raisers of bees? Unfortunately the latter is too true.

The science of beekeeping may be approached in one or the other of two ways; first by the way of environment and second, by the way of heredity.

For a hundred years, and more, the studies, researches and inventions of master minds in our own country and in other countries have been devoted to the environmental improvement of bee culture. They have given us hives, movable frames, smokers, extractors and numerous other devices and gadgets of tremendous practical and economic convenience. They have dignified our industry, and have raised it from a crude side line to an industry which draws to its ranks 800,000 individulas in the United States alone who look to the services of the little wild bee for bread and butter. Is it not a remarkable fact that an industry capitalized in this country alone at perhaps $40,000,000 is dependent upon an insect almost completely wild by nature, changed almost not at all by centuries of manipulation by man.

The door is now open for an organized attack upon scientific beekeeping by the second mentioned way, viz., by the way of heredity. This attack has already been begun in a very few pioneer laboratories and the findings convince us that the bee is subject to the same Mendelian laws of heredity as are all other farm animals.

Do we want a gentler bee, a disease-resistant bee, a bee with longer tongue, with longer and stronger wings, a bee hardier to cold and inclement weather, a bee that will not propolize, that will swarm less, a more beautiful bee. Wistful thinking will not bring it, nor will indivdual, private research carry us far. The problem is a long and tedious one, and like most fundamental research problems must be fostered and carried forward by organized endownment.

The most urgent job in beekeeping today is the breeding of improved bees. No one knows this better than the great army of keepers of the present bee who know so well her inadequacies.

Dr. Lloyd R. Watson,
Alfred, New York.

A GOOD NORTHERN OUTFIT

queen and package business which is still in fine prosperous commercial shape.

But he couldn't get Roseau out of his system, so his brother Carl stayed there and went into honey production so that the two brothers working together have one of those all-round commercial enterprises of beekeeping which characterizes so many others these days.

Carl Wenner sends us the pictures. The big one is the queen-rearing yard at Glenn, California, and the small house is the grafting room. Carl Wenner sits on the hive.

These pictures show the apiaries of Wenner Brothers at Roseau, Minnesota. Clarence Wenner first kept bees at Roseau in 1925. That same year he joined a bunch of fellows going west by car. Once in the West he went to work for big beekeepers and then on his own. At Glenn, California, he established a

Honeyville, Joe Mayer's famous sales palace near Sierra Madre, California.

POINTING THE WAY TO PROFITS

By L. H. SWEETSER

HONEY consumed annually in the United States amounts to two and a half pounds for each person. And for each single pound of honey consumed by the hapless people of this nation they make way with some 60 pounds of so-called "refined" sugar. This whole thing looks "screwy" to me, and for a long time I have thought "something ought to be done about it."

Well, I find for a fact, something is being done about it, and by a single beekeeping family which is advertising, and publicising and promoting the use of honey for food in a manner which is of more or less benefit to every honey producer in the land.

This is the way of it. Up in Sierra Madre, California, 20 miles east of Los Angeles, there grows a world-renowned Wisteria vine, said to be the largest one of the species in existence. It rambles along trellises and pergolas to cover a plot of ground 225 by 175 feet in extent. This extraordinary vine is visited annually by 35,000 to 50,000 people, from all over the globe. During blooming time, lasting usually up to 10 weeks, an advertising genius occupies a booth under the edge of this vine. An advertising genius who also chances to be a beekeeper.

This genius is Joe Mayer, publicity stunt ace of the Mayer family of beekeepers which maintains a massive way-side masonry sales-palace on a national highway at Monrovia known to thousands of travelers as "Honeyville."

Mayer is now in charge of his

(Please turn to page 512)

Left—Looking down on a portion of one of Mayer's display cases, showing some of the scores of honey packages and novelties.

Below—The Maeterlinck Room under the far-famed wisteria vine.

THE WANDERINGS OF A PIONEER

By M. G. DADANT

Mr. and Mrs. D. B. Ellis.

SOME folks like to sink their roots deep into the soil of a community, help build it, remain in it generation after generation. Others love the pioneer life; to see things, to do things, then move on to new fields to try and do again. Both are necessary to the building of a virile nation like ours.

To the second classification belongs D. B. Ellis, a successful beekeeper of the Thumb section of Michigan. When I first met Mr. Ellis, something in the slow, almost musical, quiet drawl of his voice led me to believe that he had originated somewhere in the Southland. An inquiry into where he had lived, evolved a story that surely ranks Ellis as one beekeeper who has seen his ups and downs in as many different honey producing sections as any other beekeeping personage.

Mr. Ellis was born in Arkansas, removing with his parents to the state of Washington at the age of 12. He got his first bees there. But green pastures looked attractive and soon he was in the Fort Pierce section of Florida with 200 colonies. At that time W. W. Somerford was active with bees in Cuba. Ellis contracted to work for him; so we next find him helping harvest the bellflower or Campanula honey crop. Illness overtook him and he returned to Florida.

Not for long, however. W. L. Coggshell was then one of the big beekeepers of New York. He needed help and Ellis went to aid with the crop. Then an opportunity was presented to lease some bees in California. Ellis could not pass it up. He had always wanted to see California anyway. He leased, then bought and when he had run to 1000 colonies he sold. Benson, Arizona became his next home. He liked it there too, and would be glad to go back sometime, but he still had interests in California so across the line again he went disposing of the 1100 colonies to be sure he would not have to return to a country he already knew.

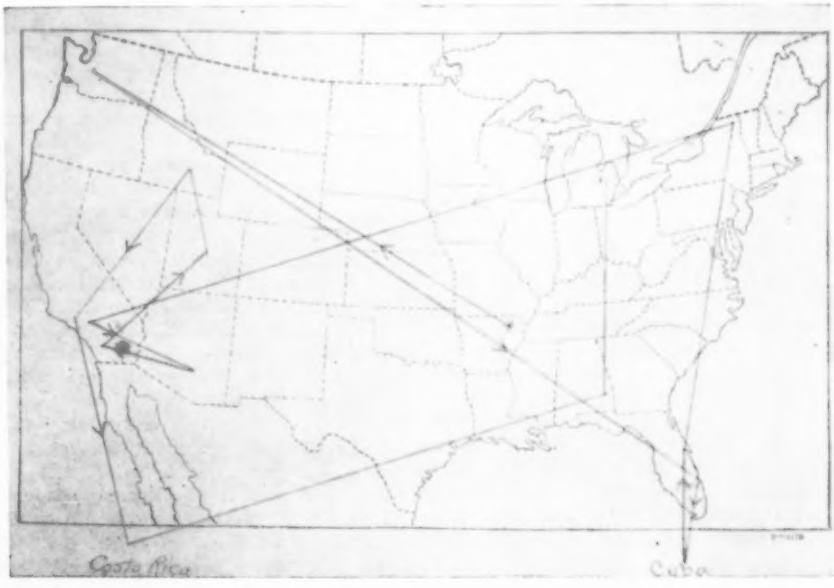
There had always been that temptation to try what several other beekeepers were doing—migrate. So Ellis migrated to Utah and Idaho, but still hanging his hat in California.

Now the lure of the road was on him again. The fairy whispered Central America. By this time Ellis had a wife and son. But that only made the trip more alluring. So Costa Rica, it was. The honey was mostly amber there with a greenish tint, and those huge "papatur" trees often gave a crop which indicated a barrel to the tree. He made money, and when W. B. Gehrels, of Costa Rica beekeeping fame, was ready to retire and move to the States, Ellis bought him out.

The tropics are wonderful; living comes easy, labor is cheap, though perhaps you pay for all the natives are worth. Still, once an American, always an American, unless you marry into foreign royalty. And Ellis has no ideas about royalty. His own family was the finest royalty there was, and they deserved the best. So back to the States they came, settling this time in Alabama.

Perhaps the dripping honey of the tropical trees had spoiled him. At any rate his Alabama honey locality

Below—Mrs. Ellis, her son, and four-year-old granddaughter. Right—Diagram showing the route Ellis has followed in pursuit of beekeeping.



was poor. The short crops, the cost of the long move and living expenses had depleted what funds he had so again a change was in prospect. Michigan sounded good; fine climate, apparently good crops, and besides it was a section of the country he hadn't yet seen. If the wife was willing, it would be Michigan. Apparently she should be, since she had pretty much helped him discover the United States. So up to the thumb of Michigan they went taking a load or two of their bees with them.

Ellis had his permit from Alabama in order, but didn't know about the incoming Michigan restrictions, so he got fined ten dollars for not having a Michigan permit. No recriminations against the inspector. He was doing his duty. But Ellis vowed he would have a hundred colonies in Michigan for every dollar of fine he had to pay. Given another year he will have them.

With a spacious new honey house, truck, apiary location and all the paraphernalia for a beekeeping outfit, my inference was that now Mr. Ellis had found his Utopia. No more would he care for a move. I asked him. "I'm getting too old to move around" said Ellis, "my son with his family doesn't like to roam as well as I do, but I sure would like to try it in Alberta or British Columbia, though. That country has always appealed to me."

The best honey? They were all good. Perhaps the orange of California, the bellflower of Cuba, the mangrove of Florida, and lastly the alfalfa-sweet clover of Michigan might get their share of first rank.

The best place to live? No particular preference. Probably easiest place to make a living was in Costa Rica. But you could be happy anywhere. The neatness and cleanliness of their premises and honey house betrayed the fact that this was the one attribute of the Ellis's along with a thorough going family combination which left them so amiable, friendly and generally optimistic after the many trials and tribulations they must have encountered in their interesting travels and sojourns as beekeepers.

BETTER BEES

SOMEONE has said that progress in this world is always made in proportion to the laymen in a given field winning over the opposition of the experts. My first experience with American foulbrood began in 1921. Many times I thought I could observe a variation among the bees with respect to the time it took for the disease to spread within the colony. From those observations I began to theorize that it should be possible to develop a strain of bees that would be immune to A. F. B. Later, I learned that other beekeepers had come to similar conclusions; many wrote articles to the bee press arguing for the idea. In 1935 I contributed an article to American Bee Journal entitled, "American Foulbrood in the Light of Modern Biology." But before I submitted the article to American Bee Journal, I sent it to one of our able and well-known experts for his opinion about having it published. The learned man's reply was discouraging. The article, he said, was nothing in the resistance theory and it ought not to be published.

At beekeepers' meetings in my state I was in the habit of bringing up the subject by asking questions of the experts who happened to be speaking; but the question always met the same negative replies. Once when I was inquiring about the tendency of some bees to clean up scales in the combs, I was abruptly told that there was no variation among the bees in this respect, therefore biologically nothing to start selecting from. Well, it seems that beekeeping experts can be as dogmatic in their opinions as the experts in other lines. But the laymen in the beekeeping world continued to clamor for resistant bees till at last something got under way. The experts were prodded into action, and the resistance experiment was the result. If not a complete success, it has at least proved itself a step in the right direction.

A problem now arising out of this resistance experiment is how to gain the greatest possible benefit from the new strain of bees. If queens from the resistant bees, from now on, will be available for distribution to beekeepers round the country, it is very important that some system of cooperative procedure be developed, in order to get the desired result.

Beekeepers should be selected at strategic points as receivers of these resistant queen. These beekeepers should raise as many queens as they could, from this new strain, the first season. The following season they should make a special effort to have those new queens produce as many drones as possible, so their locality would be literally "plastered" with resistant drones. This year, the second, the original queen should again be used as a breeder, and be made the mother of as many queens as possible. We have right to assume that many of these new queens will mate with their brother drones. This procedure could later be copied by other beekeepers, and if kept up every year for a period of ten or fifteen years it would go far towards general resistance. Bee breeding, it seems, has again become of great interest to the beekeepers, to judge from the many articles in the bee press on the subject. Again I think it can be said, it is the laymen who are at the front demanding better bees.

Various writers mention a number of different characteristics to be aimed at, in order to improve the bees. What I like to have for my locality is a strain of bees that are fairly gentle, stay on the combs when handled, are resistant to disease, are good producers of honey, long tongued, and, above all, swarm proof. Years ago when there was more production of comb honey, the idea of breeding out the instinct to swarm was much to the fore. It was thought swarming could be eliminated by selective breeding from those colonies that showed the least tendency to swarm. No doubt there is a great variation among various strains of bees in respect to swarming, variation even among individual colonies. Therefore it should not be very difficult to find suitable bees to start with. Swarming is one of the worst handicaps to the honey producer, and it has not by any means been solved by any so-called swarm control methods.

Emil Kellstrand,
Rockland, Mass.

CLAUDE MOHRMAN EXHIBIT

Here is the display that brought Mr. and Mrs. Claude Mohrman of Wellington, Ohio their coveted third straight first in the Bee Exhibit Sweepstakes at the Ohio State Fair —notice the 1938, 1939, and 1940 banners. And don't think they didn't earn them.

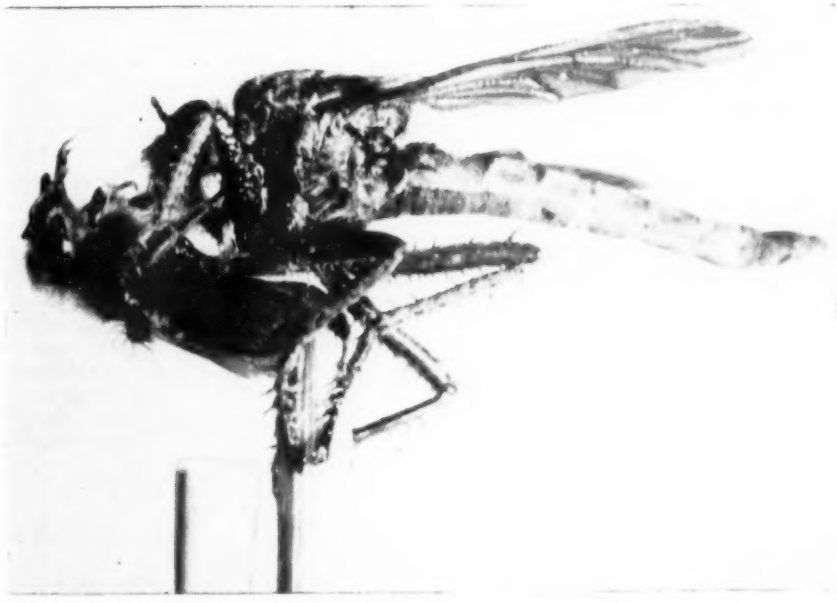
It takes something of a cross between a beekeeper and a master mechanic to put on a good exhibit, and that description doesn't miss Claude Mohrman much. But I'll bet even Claude didn't try to make the baked goods for the exhibit, so no doubt Mrs. Mohrman came in for her share of the work.

From where I sit, I can count no less than a dozen ribbons on their different exhibits. Seven first and five seconds, out of a possible fourteen. Not a bad record.

There are a lot of good tips here for exhibitors. The display in the center shows different kinds of honey. Lights behind the pyramid flash off and on spotting particular grades. Also notice on the back wall, the two displays of Ohio Honey Flowers. Specimens of each of the different plants, with a small jar of honey from that plant below.

Claude uses a drill press to make creamed honey for his exhibits. Mrs. Mohrman buys little celluloid animals, fills them with beeswax, chips off the celluloid and has beeswax models for the exhibit.

There are a number of other things we might mention about the exhibit. Driving through Wellington this summer, we didn't see a field of buckwheat for miles around, but Claude was producing buckwheat comb honey in his yard for the Fair. There is quite a trick to it. Ask Claude about it the next time you see him.



DEATH GRIP

A robber fly and a bee got into it. With the bee in its embrace, I found the pair floundering on the ground. The bee was already dead, and the robber fly was dying. Upon investigation I found that the bee's sting had found a vital spot. I posed the pair on a wheat stubble, as that is where robber flies may generally be found. This robber fly was an extra large specimen, being 1¼ inches long.

H. A. Insinger,
St. Charles, Mo.

THIS AND THAT • • FROM HERE AND THERE

NO SPECIAL HANDLING CHARGE ON QUEEN BEES

In our last issue we mentioned the possibility of a special handling fee on queen bees inasmuch as the Post Office Department has recently instituted a ruling whereby all packages of bees going through the mails are subject to a charge of 15 cents for "Special Handling."

We accordingly referred this matter to our local postmaster, and through him to the Post Office Department at Washington, D. C.

A letter today from the Third Assistant Postmaster General states that the "Special Handling fee applies to honeybees when mailed in large quantities and does not apply to shipments of queen bees and several workers." By this, it can be seen that the Special Handling will be only on package bees.

♦

EFFECT OF SCRAPERS ON HEATING, COOLING AND MIXING

The above is the title of Circular 71, of Modern Developments in Heating, Cooling and Mixing published by Sowers Manufacturing Company, of Buffalo, N. Y. Because some of the facts presented therein should be of interest to honey producers and bottlers of honey, attention is called to the circular.

The company points out the fact that the use of scrapers increases the efficiency, thereby decreasing greatly the amount of time required in heating, cooling and mixing of various products from liquids to pasty materials. Modern equipment is provided with small blades with a staggered arrangement with overlapping in order to give complete sweeping of the materials from the surfaces to which the heat is applied. Actual scraping only will remove the layer of material on the heating surface which retards the action on the rate of heat transfer and thus has an insulating effect. (Honey bottlers should note that even in "flash" systems of heating there is a film of honey on the inside of the honey coils or tubes which prevents the rapid transmission of heat to the honey in the center of the coil or honey container.)

Graphs in the Circular show a time saving of 13% in heating motor oil from 80°-228°F. with scrapers as compared with agitators which cleared the surface of the kettle by 7/16 of an inch. With aircraft oil a saving of 21% in time resulted in heating from 80°-258°F.

In heating of a pasty material aluminum oleate base grease (Specific gravity 0.8885 at 70°F) a saving of time of 80% resulted in heating from 80°-274°F. Similar time-saving results were shown in the cooling of various materials. Slightly more power is required per unit of time but the total power consumption was shown to be 0.98 kw. hr. with scrapers compared with 2.76 kw. hr. without scrapers.

The use of scrapers should be confined to kettles or heating vats and containers especially designed for their use since sheet metals commonly used are relatively soft.

Due to the overheating with resultant discoloration in the processing of honey the use of kettles with scrapers may prove to be profitable and practical by bottlers.

♦

TO FRIENDS OF AMERICAN HONEY INSTITUTE

What! Ho! November is here

And that means the honey crop is off the hives and we can figure our crop in cans, cases or pounds. Perhaps even in Dollars and Cents if markets are right.

The annual meeting of allied beekeeping industries was held at Omaha on the 22, 23, and 24th of October. A good time and program was promised by the committee in charge and we are sure that it all came true.

At Omaha, the Institute staff headed by Mrs. Grace gave its annual report of activities. Have you been reading them in the Institute News Notes in each issue of the Journal? We hope you had the pleasure of being at Omaha to enjoy the convention including Mrs. Grace's splendid report on the various ways in which honey publicity was promoted during 1940 and plans for 1941.

Thanks to honey producers and allied interests everywhere, the Institute is on a sound financial basis. The small staff at Madison can work efficiently without fear of having a "closed shop." Are you doing your bit and have you sent in your 1940 membership as yet?

Why not send your Institute membership dues in now in order that your name may be included in the 1940 report of Who's Who in American Honey Institute? It will also help the Institute Directors to make definite plans for Institute activities in 1941.

Your support of a good cause is appreciated by all of your fellow co-operators. In case you have forgotten—$1.00 per ton—or as you see fit. You are the judge. Let's do it now and keep on doing it.

V. G. Milum,
For the 1940 Finance Com.
American Honey Institute.

♦

ROYAL JELLY

I would like to make the following comments with regard to your "Postscript" in the July issue of American Bee Journal. The manganese present in royal jelly undoubtedly has its origin in the food consumed by the worker. Manganese is present in plant and animal tissues, but its function is not clearly understood. However, I recall that the respiratory pigment in the lamellibranch, **Pinna,** contains manganese. Examples of common lamellibranches are mussels, oysters, clams and other bivalves. It has also been reported from John Hopkins University that manganese regulates the maternal behavior of lactating rats.

Sodium is found in all organisms and is essentially concerned with the regulation of osmotic pressure. It tends to increase the permeability of the cells, and thus balances the tendency of calcium to harden the plasma membrane. Sodium is essential for adequate animal nutrition and, undoubtedly, is a dietary requirement for both queen and worker honeybees. However, it is possible for royal jelly and worker pap to contain different amounts of an element and at the same time furnish the minimum amount required by the organism.

In conclusion, I would say that the

observation you mention is of interest, but I do not feel that the author has definitely related the differentiation of the larval female honeybee to the absence or presence of manganese and sodium in the diet. I feel that the presence of an element in a food does not necessarily make it a dietary essential.

R. M. Melampy.
Assistant Apiculturist.

♦

CORRECTION

In your department "This and That from Here and There" of the October Journal total Canadian honey production is listed as 11½ million pounds in 1939 and 16 million pounds in 1938. These are the honey production figures for the province of Ontario for the two years mentioned. Canada's total honey production in 1938 was 37,909,000 lbs. and in 1939 it was 28,856,000 lbs. In general 1940 seems to be a poor year and will probably be lower than 1939. This information is contained in the March number of the Monthly Bulletin of Agricultural Statistics published by the Agricultural Branch of the Dominion Bureau of Statistics, Ottawa. Statistics are given for some years back. If you are interested in having a copy it is possible that they will have extra copies available at Ottawa and would send you one on request.

E. C. Martin,
Lecturer in Entomology.

♦

TWO-QUEEN COLONIES

Increasing production is a sure way to decrease costs. Remember that in a two-queen colony, the relation of population to brood is only about 25 per cent (brood); in a single queen colony, 50 per cent or more.

Also two-queen colonies have 50 to 80 per cent more pollen reserves in fall than those with single queens. The average production of honey in a commercial yard is only about a third of the maximum production of the best colonies.

M. D. Farrar.

♦

SHIPPERS IMPROVING

Package shippers try to improve every year. They thought they had sent out the best packages ever in 1940. Why the difficulties with disappearing queens, dwindling, etc.? Several factors might contribute, but likely the weather both North and South had most to do with it especially prolonged cold spring in North which prevented early nectar and renewal of pollen supplies.

G. G. Puett,
(Michigan Meeting.)

♦

SWEET CLOVER TAINTS WHEAT

Some of our newspapers and farm journals here in Manitoba and in western Canada have been featuring articles on what has come to be called "mellilot" in wheat. Millers both here and in England have been complaining that where the grain has been in contact with sweet clover seeds, a definite flavor persists into the flour and spoils its flavor. It does not appear to be a very widespread problem, as only some 100 to 150 cars of wheat were graded "rejected" on this ground out of some 300,000 inspected. The difference in price was 11 cents, so that some farms apparently lost an aggregate of some $20,000.

To a beekeeper the advice given to the farms makes sorry reading. Sweet clover should not be grown, or if it is grown it should be cut by July 1 and the land immediately plowed, "to prevent second growth." All clover plants along roadsides and headlands should be destroyed. The whole tenor of the various articles is to regard sweet clover as a noxious weed.

The honey industry in Western Canada probably produces an income of $1,000,000 to $1,500,000, mostly from sweet clover, and it does seem that this propaganda is out of all reason. To jeopardise a million-dollar industry in order to save $20,000 does not make sense. There is no reason why sweet clover seed that accidentally gets into wheat should not be cleaned out at the elevator, and it would be a very serious loss to the fertility of the land if sweet clover should be abandoned. Its deep roots keep the land from blowing, and its nodules fix nitrogen. During the past few years of limited rainfall its culture has decreased simply because it is hard on moisture in the land, but if the usual weather cycle should bring us back some years of more normal precipitation, then sweet clover should come back, despite propaganda from the millers.

Hy. W. Sanders,
Morris, Manitoba.

ONE SCALE COLONY

Here is my latest scale hive record, with comparison with previous year. This year's record is made from a division of an overwintered, two-story colony, given a new queen about May 1.

Date		Weight	1940 Gain (Loss)	Weather 1940	1939 Gain
May	20	62 lbs.			
June	12	67	5	warm	14
"	13	71	4	warm	15
"	14	73	2	cool	15
"	15	75	2	cool	
"	16	75		rain	18
"	17	75		cool	13
"	18	75		cool	
"	19	76	1	cool	
"	20	76		cool	
"	21	77	1	cool	
"	22	86	9	windy	1
"	23	89	3	cool	9
"	24	89		windy	9
"	25	89		windy	7
"	26	94	5	warm	2
"	27	102	8	warm	0
"	28	101	1-	windy	3
"	29	104	3	cool	6
"	30	111	7	cool	0
July	1	118	7	cool	5
"	2	125	7	cool	5
"	3	132	7	cool	5
"	4	138	6	cool	6
"	5	167	8	warm	3
"	6	174	7	warm	4
"	7	182	8	warm	5
"	8	192	10	hot	
"	9	196	4	showers	
"	10	206	10	hot	2
"	11	208	2	cloudy	
"	12	210	2		2
"	13	214	4		1
"	14	219	5		3
"	15	222	3		1
"	16	223	1		1
"	17	225	2		4
		Gain 142 lbs.			Gain 149 lbs.

Charles D. Sheldon,
Berwick, Illinois.

♦

OUTDOORS IN ALBERTA WINTER

I am wintering my bees in packing cases, outside, and, in the last two winters, they have all come through with no loss and in fine shape. Last summer, I split my colonies three times and extracted 170 pounds of honey, after leaving them plenty of stores for winter; pretty good, I think, for this north country.

A. T. Carter,
Hines Creek, Alberta.

POINTING THE WAY TO PROFITS

(Continued from page 506)

Wisteria vine booth not far from his Honeyville headquarters for the tenth successive year. Here, he gets into personal contact with great numbers of people, sometimes during the well-advertised Wisteria Fiesta amounting to upwards of 3,000 a day.

Let's look into the methods used by this family. When starting in the bee business, in 1908, Mayer senior and his wife had three two-story hives and no money, but a lot of ambition. They worked out for their living. But Sundays and holidays they stocked a table with honey and sold the product on a main highway which ran near their home. Their honey was top quality and they soon had a string of customers. Presently Mr. Mayer spent all his time tending to a progressively increasing number of colonies. By 1918 the entire family, lock stock and barrel, including a brother and two sons, went whole-heartedly into the business.

In the mean time, the Mayers worked out a system which they believed would insure success. Their problem was to sell honey at a profit, and at a volume sufficient to take care of their wants. They first decided to sell only the best quality honey, a common plan which we all know about, but which we do not all practice. They believed high quality would get quality customers, and quality customers were what they were after. So, right from the first, they sold only top honey to the retail trade, and honey true to label. Sure enough, by so doing, they got the people who had the "honey faculty," and these customers came from miles to get the particular type of honey they favored.

They had started on the right track —to get **quality custom.** For there is quality in the customer as well as quality in the product. Both go together, and the quality customer is the kind who pays for what's wanted without quibbling about the price. The Mayers sold quality goods, and goods which justified demanding a price commensurate with quality.

The next link in their system was to broaden their market. To find more quality customers. They needed a location where such customers were to be found. So they hunted up a spot, on a trans-continental highway crowded with tourists of means, and in a bend where their stand could be seen for long distances by approaching motorists. Here they erected a wayside booth as attractive as their limited funds would allow. As time went by, this stand was improved in appearance, until now it is a marvel of attractiveness which travelers can hardly resist stopping to investigate.

Their prospective customers traversed this highway, and it was now up to the Mayers to display something which the visitors could not resist the impulse to buy. They designed novel ways of tempting the curious. Used novel containers and unusual methods of showing their product. They invented and patented a method of sterilizing and preserving orange blossoms, placing them in glass jars filled with orange blossom honey and a piece of comb. The blossoms were edible, and thousands of this packet were disposed of, quantities being shipped to various points in many foreign countries.

Joe Mayer, now the publicity man, watched the trend, and whenever something new appeared, he used it. For instance, honeycomb candles. Dates preserved in honey. Comb honey and extracted honey used in candies. He stressed the contrast in flavors of different honey types.

Mayer found that visitors were woefully ignorant of the food value, and the curative value, of honey. He went to work instructing them. First, by passing out a single modest printed leaflet. Until finally, a score of circulars, folders and varied literature are distributed at the family's two booths. Some setting forth the value of honey as a food. Others telling about its worth as a tonic or medicine. And some explaining the life and habits of the honeybee, and giving the history of the growth of Honeyville.

Joe has just finished distributing one lot of 25,000 well-written folders telling of the benefit arising from the use of honey in cases of acidocis, stomach troubles, constipation, asthma and hay fever, catarrh, diabetes and other ailments, and showing it to be a source of needed calcium and other minerals. All the Mayer literature is distributed where it will be a benefit, not cast into alleys and ash cans by hired distributors. But placed in the hands of customers who will likely take it home and read.

In order to reach these customers, the family located, as above noted, in places where desirable customers could be found. One such place is the booth under the great Wisteria vine. Joe Mayer has a visitors' book here. One season, 9,000 visitors inscribed their names and addresses in this book. Mayer gets new customers for honey, but, like all advertisers he has to "keep going" to hold them, or to get new ones to take the places of those dropping out. Honeyville is not the only place in the world where good honey can be got. Mayer's converts frequently find that they can buy satisfactory honey elsewhere, so some drop out. His publicity has helped the producer who carries on his business in a more leisurely fashion.

Mayer has worked up a mailing list of 11,000 active customers but he has to keep active himself to keep the list up to date. So he maintains his booth under the Wisteria, during season, helping out his Honeyville location and getting new customers to take the place of those who stray into other folds. Frequently, he enters prize-winning displays in fairs.

He has found that good advertisers take advantage of openings provided by other industries. Frequently this results in advantage to both. The Kellogg Company, makers of breakfast foods, observing that users of honey could be induced to use more Kellogg products by putting honey on their foods, got out attractive folders telling of the advantages of honey from many angles, and printing a series of recipes in which their product and honey could be used. They furnish these to honey merchants, and Mayer took advantage of the offer, distributing thousands of these folders.

As I left the "Maeterlinck Room," as the family has named their stand under this world-renowned Wisteria, I thought of the results that might ensue if many other honey producers made use of the methods of this successful beekeeping family. I thought of the publicity campaigns of the egg producers, now enclosing literature in their egg cartons, putting up attractive cards in markets, drug stores, restaurants. Of the packers who call attention to their "tenderized" hams, by posters. To the enormous expenditures for magazine advertising by associations of orange growers, potato raisers, melon men, whiskey distillers, wine makers, tobacco men.

There are 12,000 honey producers in California alone. Suppose half of them took up the publicity campaign and the instruction campaign of the Mayers. It struck me that the rush of newly converted honey users would swamp the market. A great unopened market lies before the beekeepers, to be developed, to spread the use of honey a boon to humans. Under the fragrant blooms of this great Wisteria I heard a voice: "Calling all beekeepers! Go and do likewise. Get wise, advertise, and publicise!"

North Hollywood, Calif.

♦

OTHER NAMES FOR HONEY

In the early days of American beekeeping, in Pennsylvania cane sugar was referred to as dry sugar, honey as moist sugar. In the South honey was long sweetening; sugar, short sweetening.

Kellogg Representative,
(Michigan Meeting.)

SOUTHERN BEEKEEPERS' CONVENTION, TAMPA, FLORIDA, NOVEMBER 18-19-20

WE present the tentative program of the Southern States Beekeepers Federation meeting with the Georgia Beekeepers Ass'n and the Florida Beekeepers Ass'n to be held November 18, 19, and 20, at the Hillsborough Hotel, in Tampa, Florida.

Under the capable supervision of Manager William C. Neilly, this Federation hotel enjoys a high reputation as a homelike and luxurious hostelery. Recently redecorated, it boasts of its Gasparilla and Arbor rooms, a colonial grill, and 360 guest suites and bedrooms.

"Too marvelous for words," one might exclaim about the Hotel Hillsborough in Tampa, but to a voluble writer this location, where neither time nor expense is ever spared by the management in providing its guests—particularly convention delegates—with meals par excellence, suggest a host of commendatory words; however, regardless of what beekeepers, or their wives, may anticipate, we predict that on November 18, 19, and 20, they are in for a pleasant surprise in a colorful convention hotel which will provide them with a sense of well being and every comfort.

The geographical location, climate, topography, coastline, and history of Florida mark her as different from any other state. The diversity of crops, season for planting and harvesting are paralleled by none better.

Tampa has a romantic and highly interesting background. It is among the younger American cities, but older than the oldest in historical records. It has been given an air of romance by the men and the events that have touched it throughout its history. Harboring ships from the Seven Seas have entered port here. Many men have brought a flavor of Old Spain. No city in the South has a more colorful and romantic atmosphere.

Into this busy metropolis will come a steady stream of beekeepers and their wives November 18. They will learn that Tampa receives its name from the Indian word "Itimpi" meaning "Close to it." Tampa appropriately earns its name. It is close to the old world because if its Latin Quarter in Ybor City; close to Cuba by steamship and air; close to many churches; and close to all luxurious recreational facilities. Here you will be close to spending the ideal days of your life, November 18, 19, and 20.

The Southern States Beekeepers Federation, the Georgia State Beekeepers Association, the Florida State Beekeepers Association, and the Ladies Auxiliary are all working to help promote better beekeeping in America. There will be a special meeting of the Package and Queen Bee Shippers and also a special meeting for the Apiary Inspectors.

The convention committees hope to have the pleasure of making your visit to Tampa a very enjoyable time, and one that you will not soon forget.

H. S. Foster, Secretary,
Southern States Beekeepers
Federation,
Lakeland, Florida.

PROGRAM

Southern States Beekeepers Federation and Georgia and Florida State Associations

Headquarters: Hillsborough Hotel, Tampa, Florida.

Monday, November 18

E. C. Bessonet, President, Presiding

8:00—Registration, hotel lobby.

9:00—Meeting called to order.
Invocation: Rev. John Branscomb.
Welcome to Florida, Governor-elect Spessard L. Holland.
Response, E. G. LeStourgeon, San Antonio, Texas.
Welcome to Tampa, Mayor R. E. L. Chancy.
Response, L. M. Dewey, Merrits, Florida.
Announcements.
10:00—Address, President E. C. Bessonet.
10:15—"Nectar Producing Plants of South Florida." Frank Stirling.
10:30—Address, M. S. Yeomans, State Entomologists, Georgia.
10:45—Address W. E. Anderson, State Entomologist, Louisiana.
11:00—Address, Clay Lyle, State Entomologist, Mississippi.
11:15—Entertainment—group singing.
11:30—Address, Dr. D. W. Watkins, Clemson College, S. C.
11:45—Committee appointments.
12:00 to 1—Luncheon, Hillsborough Hotel.

Monday Afternoon

1:30—Address, Nathan Mayo, Commissioner of Agriculture.
1:45—Address, E. G. LeStourgeon, San Antonio, Texas.
2:00—"Honey Plants of South Carolina," David Dunavan.
2:15—Beekeeper's Duty to Himself, Geo. Bohne, Luling, Lousiana.
2:30—Research in Beekeeping, Dr. Whitcomb, Jr. Bee Culture Laboratory, Baton Rouge, Lousiana.
3:00—Address, E. R. Root, Medina, Ohio.
3:30—Address, Alonzo McKay, Vicksburg, Mississippi.
3:45—Entertainment.
4:00—Address, Dr. M. C. Tanquary, Minneapolis, Minnesota.
4:30—Address, C. H. Bishop, Atlanta, Ga.
5:00—Open discussion.

Monday Evening

8:00—Moving Picture, "Beekeeping in Alabama," Thos. Atchison, Montgomery, Alabama.
9:00—Special Sessions of:
Apiary Inspectors of America
Florida State Beekeepers Ass'n.
Package Bee Shippers.
Honey Producers and Packers.

Tuesday, November 19

A. J. Reamy, President Georgia Beekeepers Association, Presiding
9:00—Meeting called to order.
9:15—Address, G. G. Puett, Hahira, Ga.
9:30—"Value of Bees in Pollination," Geo. Rea, Cornell University.
9:45—Address, A. V. Dowling, Valdosta, Ga.
10:00—Address, Tom Burleson, Texas.
10:15—Address, R. W. Sterrett, Owens-Illinois Glass Co.
10:30—"It's Up to You and Me," J. M. Deyell, Medina, Ohio.
10:45—Address, George Abrams, Maryland.
11:00—Entertainment: Duet by Mr. and Mrs. Gus Seeburg, Bradenton, Florida.
11:15—Address, L. W. Rhodes, Jacksonville.
11:30—"Florida Honey and How to Pack it." O. E. Seeburg, Manatee, Florida.
11:45—"Georgia Honey and How to Pack It," J. J. Wilder, Waycross, Ga.
12:00 to 1—Luncheon, Hillsborough Hotel.

Tuesday Afternoon

Ladies Auxiliary
Mrs. R. E. Foster, Presiding
1:30—Meeting called to order.
1:45—Address, Mrs. Harriett M. Grace, Madison, Wisconsin.
2:15—Address, Dr. Ouida D. Abbott, Gainesville, Florida.
2:45—Address, Mrs. DeWolf, Crescent City, Florida.
3:00—Address, Mrs. Tom Burleson, Texas.
3:15—Address, Mrs. H. S. Foster, Gainesville, Florida.
3:30—Address, Mrs. R. W. House, Dunedin, Florida.
3:45—Entertainment: Mr. and Mrs. Gus Seeburg.
4:00—Address, Miss Isabelle S. Thursby, Tallahassee.
4:30—Open discussion.

Thursday Evening

7:30—Banquet, Hillsborough Hotel (Informal) L. M. Rhodes, Jacksonville, Toastmaster.

Wednesday, November 20

L. M. Dewey, President Florida Beekeepers Association, Presiding
9:00—Meeting called to order.
9:15—Address, Raymond Shelton, Tampa.
9:30—Address, A. J. Reamy.
9:45—Address, L. M. Lewis, Havana.
10:00—Address, Dr. E. Ortel, Bee Culture Laboratory, Baton Rouge, La.
10:15—Address, P. G. Craddock, Raleigh, North Carolina.
10:30—Address, C. A. Reese, Columbus, Ohio.
10:45—Address, Peter Bianco, Tampa, Fla.
11:00—"Shipping Package Bee," M. C. Berry, Montgomery, Alabama.
11:30—"Receiving Package Bees," A. M. Kelty, Michigan.
12:00 to 1—Luncheon.

Wednesday Afternoon

E. C. Bessonet, Presiding
1:30—James A. Starkey, Indianapolis, Ind.
2:00—Address, J. M. Robinson, Auburn, Ala.
2:15—Open discussions.
2:30—Committee reports.
Election of Officers.
Unfinished business.
Adjournment.

WESTERN WASHINGTON SWEEPSTAKES

MR. A. J. Sentz, of Snoqualmie Falls, Washington, won the Sweepstakes award with the above display at the Western Washington Fair held at Puyallup, Washington, from September 16th to 21st.

Richard E. Bertolin,
Longview, Washington.

North Carolina Association

The North Carolina State Beekeepers' Association is planning to sponsor a fall meeting for the beekeepers, to be held in Henderson, N. C., Thursday, November 14. This meeting will be both interesting and instructive with good fellowship prevailing. Several authorities on bee culture will be on the program with a real message; several valuable prizes are to be offered; and, weather permitting a visit to a local bee yard will be a feature. Headquarters for the meeting will probably be located in the County Agent's office. Vance County has an active Bee Club and I am sure a hearty welcome awaits us.

A list of out-of-state speakers will include the following: H. W. Weatherford, Vernon Hill, Extension Specialist for Virginia; T. C. Asher, large commercial honey producer of Brookneal, Virginia; A. D. Hiett, of the G. B. Lewis Co. and H. J. Cary, of the A. I. Root Co.

Our own state talent will include C. L. Sams, extension specialist; P. G. Craddock, state apiary inspector; Professor F. B. Meacham, Teacher of bee culture, North Carolina State College, and, it is hoped, several local beekeepers will contribute to the program.

Annual Convention California State Beekeepers Association

The annual convention of the California State Beekeepers Association will be held November 6, 7, and 8 at Hotel Roosevelt, in Hollywood. The program will include discussions on marketing, migratory beekeeping, queen rearing, races of bees, disease resistant strains, extracting plants,

factors affecting locations, honey by-products, spray poisoning and many other topics of interest to both the amateur and commercial beekeeper alike.

The formal portion of the program will be scheduled for 10:00 to 12:00 and 2:00 to 4:00, thus allowing ample time for informal discussions among those who attend and for the many special entertainment features being arranged by Wm. J. Fox, chairman of the local arrangements committee, and by Dan Addison, of the Hollywood Convention Bureau.

The Ladies Auxiliary will be addressed by Marion Manners of the Los Angeles Times and by Harriet M. Grace of the American Honey Institute.

We wish cordially to invite beekeepers from neighboring states and to guarantee them an interesting and profitable time. J. E. Eckert.

[Notice change in dates from November 7, 8, and 9 to November 6, 7, and 8.—Editor.]

♦

Minnesota Beekeepers Association

The annual convention of the Minnesota Beekeepers Association will be held in conjunction with the convention of the Minnesota Horticulture Society on November 13-14 at the St. Paul Hotel in St. Paul. Prizes will be awarded for the best exhibits of comb and extracted honey. Bring or send your exhibits to Mr. Edward Thomas in care of the St. Paul Hotel. A large attendance is in prospect, so come and meet your friends.

Norris J. Ellingson,
Secretary.

♦

Georgia Meeting November 7

During Georgia Honey Show Week, starting November 4, the Georgia Beekeepers Association will hold a one day business meeting on November 7, at the Sears Roebuck Farmers Market, Atlanta. The program follows:

9:00-9:05—Call to order, President A. J. Reamy. 9:05-9:30—Reading of minutes. Appointment of Committees. Other business. C. H. Herndon, Secretary. 9:30-10:00—Report on Honey Show, C. H. Bishop. 10:00-10:15—Inspection report, A. V. Dowling. 10:15-10:30—Federal and State Label and weight regulations, Walter Perkins, Ass't Commissioner of Agri. 10:30-10:45—New Florida Bee Laws, R. E. Foster, State Apiarist, Gainesville, Flordia. 10:45-11:00—Invitation to Tampa Meeting, A. K. Dickinson, Tampa Chamber of Commerce. 11:00-11:30—Open. 11:30-12:00—J. J. Wilder. 12:00—Noon recess. 12:30—Lunch, Guests of Sears Roebuck Company.

1:45-2:00—Ned Prevost, Extension Bee Specialist, Clemson, S. C. 2:00-2:15—Reports of Committee. 2:15-2:45—Plans for new appropriations, M. S. Yeomans, State Entomologist. 2:45-4:00—Open discussion on: 15c per colony charge for certification; change in regulations in moving bees into Georgia; Comb embargo; New inspection regulations; New legislation. 4:00-4:30—Unfinished business. 4.30-4:45 Installation of Officers. 4:45—Adjournment.

♦

Oregon State Meeting

The annual meeting of the Oregon State Beekeepers Association will be held at the Public Service Building in Portland, November 22 and 23.

H. A. Scullen.

♦

Iowa Beekeepers Will Meet November 21 at Ames

The annual meeting of the Iowa Beekeepers' Association and the Auxiliary will be held at Ames on Thursday November 21. This meeting will be held in conjunction with meetings of the State Horticultural Society and affiliated organizations. The banquet of the organizations will be held in the evening.

The one day session of the Association seems advisable as many of the producers of the state may not have an opportunity to attend the national meeting, and this will give an opportunity to bring from the national organization messages and inspiration for other Iowa producers. Since the program will occupy one day, it will be necessary to have the full program with the business session starting early in the forenoon. Cooperation is asked of visiting producers in getting to the meeting place a little earlier than has been the custom in the past. The details of the program will not be mailed to members of the Association, but will be sent to anyone who is interested if a request is made. Special features are being arranged for this program so that it will add plenty of interest for anyone who can make arrangements to drive their car or ride in with some neighbors.

♦

Colorado, Grand Junction, Nov. 12-13

The annual meeting of the Colorado Beekeepers' Association will be held at Grand Junction, November 12 and 13.

L. R. Rice, Secretary,
Greeley.

♦

Middlesex County (Mass.) Nov. 30

The Middlesex County Beekeepers Association will meet at 19 Everett Street, Concord, Massachusetts on Saturday, November 30 at 7 P. M. A turkey will be given away. Mr. Copeland will show the color pictures he

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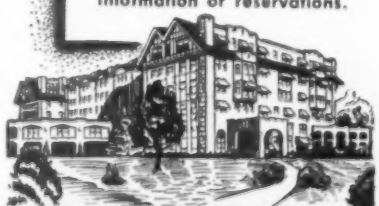

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STATEMENT OF THE OWNERSHIP MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912 AND MARCH 3, 1933.

Of American Bee Journal, published monthly at Hamilton, Illinois, for October 1, 1940.

STATE OF ILLINOIS, } ss.
County of Hancock, }

Before me, a notary public in and for the state and county aforesaid, personally appeared J. C. Dadant, who, having been duly sworn according to law, deposes and says that he he is the business manager of the American Bee Journal and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the name and addresses of the publishers, editors, and business managers are:

Publishers: American Bee Journal, Hamilton, Ill.

Editors: G. H. Cale, Hamilton, Ill., Frank Pellett, Hamilton, Ill., M. G. Dadant, Hamilton, Ill.

Business Managers: M. G. Dadant, Hamilton, Ill., J. C. Dadant, Hamilton, Ill.

2. That the owners are:
H. C. Dadant, Hamilton, Ill.
J. C. Dadant, Hamilton, Ill.
V. M. Dadant, Hamilton, Ill.
M. G. Dadant, Hamilton, Ill.
C. S. Dadant, Hamilton, Ill.
R. A. Grout, Hamilton, Ill.
L. C. Grout, Hamilton, Ill.
L. C. Dadant, Hamilton, Ill.
R. H. Dadant, Hamilton, Ill.
Louisa G. Saugier, Hamilton, Ill.

3. That the known bondholders, mortgagees and other security holders owning or holding one per cent or more of the total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owner, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustees or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

(Signed) J. C. DADANT,
Business Manager American Bee Journal.

Sworn to and subscribed before me this 19th day of September, 1940.

MINNIE S. KING, Notary Public.
My commission expires Nov. 18, 1941.

1940 Season Now Closed
Watch For Our Announcement of
Better Bees and Queens in 1941
DAVIS BROS., Courtland, Calif.

has been taking at the eastern beekeepers meetings this summer, and Mrs. Copeland will be in charge of the Ladies Auxiliary supper featuring meat pies, honey vinegar relish, honey all bran pudding, and coffee sweetened with honey. Membership in the club is not limited to residents of this county.

Arthur M. Southwick,
President.

♦

Washington State, Seattle, Nov. 15-16

The Forty-seventh Annual Convention of the Washington Beekeeper Association and The Ladies' Auxiliary will be held November 15 and 16 at Johnson Hall, Washington State University, Seattle. Included among the speakers are Dr. Kincaid, University of Washington; Professor J. Dicks, Haney, British Columbia; Dr. H. A. Scullen, Oregon State Agricultural College; Dr. R. L. Webster, Washington State College; and R. E. White, Department of Agriculture. Plan to attend this convention for two days packed with interesting subjects and pleasant entertainment.

Mrs. Eva Wixom,
Secretary.

♦

Rock Island (Illinois)

Rock Island County (Illinois) association held ther annual meeting at Edgington, September 5, some fifty beekeepers being in attendance. Good crops are reported, mostly from sweet clover and alfalfa. According to C. K. Dean, president of the organization, alfalfa yields seem best on sandy or clay soils and when the crop is not cut too soon, but allowed to stand until blossoms are well matured.

Among the speakers were A. L. Kildow, bee inspector for 25 years for Illinois, now retired, Rev. Dean, Elmer Kommer, C. D. Sheldon and M. G. Dadant. Considerable criticism was made of the extremely low prices at which honey is being sold to distributors in the territory by outside packers. Officers selected for 1941 included C. K. Dean, president; C. G. Schave, vice-president; S. F. Peterson, secretary; and H. A. Wickersham, treasurer. Directors: Mr. Eckhardt, Geo. Seitz, and Mr. Hinchberger.

♦

Northwestern Iowa Beekeeper's Hold Meeting

On September 12, at 10 A. M. a group of Northwest Iowa beekeepers met at the Clay County National Bank Building in Spencer, Iowa, and discussed the possibilites of organizing a Northwest Iowa Beekeeper's Association.

The idea of such an association met with instant approval of those present, and proceeded to elect temporary officers as follows: Floyd Hoovel of Fostoria, Iowa, president; Adolph Land of Newell, Iowa, vice-president; and Robert Savage of Spencer, Iowa, secretary.

Robert E. Savage, Sec'y,
Spencer, Iowa.

♦

Arkansas Valley

The Arkansas Valley beekeepers met at Riverside Park, Wichita, September 7. Reports are of good honey crops this year. According to Dr. R. L. Parker, (Kansas State College) the 25,000 colonies of bees in Kansas gathered only about one third of the available nectar last year. Since 1932, the number of apiaries in Kansas has decreased from 70,000 colonies to 25,000, from drought. "During the past year however more honey was produced than in any other year, since 1925."

N. Carreau,
Wichita, Kansas.

♦

Indiana State Beekeepers Association

The Annual Convention of the Indiana State Beekeepers Association will meet in The House of Representatives, State House, Indianapolis, Indiana, on November 13, 1940. A good program is assured.

James E. Starkey,
Secretary.

♦

Illinois State Beekeepers

The annual fall meeting of the Illinois State Beekeepers Association will be held at St. Nicholas Hotel, Springfield, Illinois, Nov. 8 and 9. A good attendance is anticipated.

Hoyt Taylor, Sec'y.

♦

Wisconsin Meetings.

Fifty years ago N. E. France made his bow as a speaker by appearing at a Wisconsin bee meeting to discuss "Laws in Defense of Beekeepers." Seven years later, owing largely to his efforts, Wisconsin had its first bee law, and N. E. France became the first inspector. Although lately he has confined his inspection activities to his own county, he has been a bee inspector in Wisconsin all these years. Now he is eighty-three, and many of his friends and old beekeeping associates, with their families, assembled July 23 at his home town, Platteville, to visit with him and with Mrs. France, and to attend a beekeepers meeting.

State Entomologist Chambers did the honors, ably assisted by E. R. Root. Crops in southeast Wisconsin are only fair this year, due to the late cool spring followed by heat and drought.

Secretary Rahmlow keeps interest in his meetings simply by not letting things drag. July 24, at the Menomonee Falls meeting, held at the fine honey house and apiary of Walter Diehnelt, his beekeeping quiz, with

some of the notables on the carpet, developed some interesting facts about the work at the Field Station at Madison, with C. L. Farrar in the leading role. An article on the work of this station appeared in September.

Bees were working fine in the Diehnelt yard. We found good crops in central and eastern Wisconsin, and too, hot weather. But Mrs. Dadant and I cooled off that night in the hospital Schulz cottage on Green Lake.

Ideal weather favored us at the third meeting, held at Ladysmith, Wisconsin, July 26. Robert Knutson who presided, is a "killer-offer" of his bees but got into grief this year through delays, disappearing queens, and slow buildup. This is one point which must be taken into consideration by prospective users of this plan. Yet remember that north and south spring season like the present one occurs seldom. I remember only one since we took over the publication of the American Bee Journal twenty-eight years ago.

As one goes through the country visiting beekeepers, he is struck by the large part sweet clover plays in the crop picture. Are we in a clover "cycle"? How long will it last? When it wanes, what will take its place? Predicting the future is interesting but uncertain.

Our respect should be paid to C. D. Adams, who has been chief apiary inspector for Wisconsin for a number of years. He has reached retirement age, and an examination is soon to be held to select his successor. The new man will have a hard time to fill Adams' shoes.

M. G. Dadant.

♦

Iowa Apiarist Report

The report of the Iowa State Apiarist for 1939 is ready for distribution. It is a book of 115 pages and contains much matter of interest to beemen outside that state. In addition to a report of the activities of the State Apiarist it contains the papers from the Convention of beemen held at Des Moines last year.

Those who think of a State Apiarist as one whose sole duty is to serve as inspector for disease control, will be surprised at the wide field covered by the office of State Apiarist in Iowa. F. B. Paddock has charge of apiary inspection but it is only one of many activities reported in this volume. Copies may be had by writing direct to Prof. Paddock, Ames, Iowa.

♦

British Restrictions

According to the "Bee World" British beekeepers are allowed a maximum of ten pounds of sugar per colony for feeding their bees this fall. There has recently been placed into effect, a regulation forbidding the use of tin for honey containers.

♦

California Bulletin

Honey production in the California mountains is on the increase. It is in this region that the buckeye is found and the nectar from California buckeye is poisonous to the bees.

In order to assist the beekeepers in choosing locations in safe areas a bulletin has been published giving the distribution of buckeye. It is entitled "The Distribution of California Buckeye in the Sierra Nevada in the Relation to Honey Production" by Geo. H. Vansell, Wm. G. Watkins and L. F. Hosbrook.

The bulletin contains a series of maps of the region in which buckeye is found with the limits of distribution shown. It should be of great assistance to beekeepers operating in that territory.

Those wishing copies should address the State University, Berkeley, California.

♦

Manitowoc Association Pools Car

The first carload of 33,000 pounds of extracted honey to be shipped out of the county by the Manitowoc County Beekeepers Association left Reedsville, Wisconsin, early in October. There were 275 cases containing two 60 pound containers each, according to Fred Mack, Reedsville, secretary of the association.

The cases were loaded in a single tier to prevent breakage, in a special car, 9 feet 2 inches by 50 feet, which was designed to fit such shipments. The entire season's output was purchased by the C. W. Aeppler Co., Oconomowoc, Wisconsin.

The 1940 crop for Manitowoc County apiaries was an average one. The season promised to be an outstanding one until excessive rainfall set in during August. The autumn honeyflow was so deficient that the bees were unable to store a winter supply of food and as a consequence beekeepers in the county are resorting to artificial feeding to carry their colonies through the winter.

H. C. Brunner,
Milwaukee, Wis.

♦

Herman C. Zirbel

Herman C. Zirbel, 83, for a number of years a beekeeper, died October 8 in a Green Bay, Wisconsin hospital following a stroke. Mr. Zirbel resided in Rockland and De Pere, Wisconsin for many years. He is survived by three sons, two daughters and a sister.

H. C. Brunner,
Milwaukee, Wis.

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AMERICAN BEE JOURNAL ❖ HAMILTON, ILLINOIS

CROP AND MARKET REPORT

Compiled by M. G. DADANT

For our November Crop and Market Page we asked reporters to answer the following questions:

1. How is total crop compared to 1939?
2. Condition of bees compared to 1939?
3. At what price is honey moving in bulk?
4. Is jobbing demand better than a year ago?
5. How is local demand?

Total Crop Compared to 1939

It s pretty evident that the crop in the New England states will not equal that of a year ago, whereas that of New York and New Jersey will be about 20 per cent greater. Pennsylvania does not report the crop of a year ago although nearly normal. The southeastern states are about normal, with North Carolina and Georgia reporting considerably above last year, in fact from 120 to 140 per cent more. Florida is only about 85 per cent of last year. The southern states rank about normal, with Louisiana, however, quite short. The total Texas crop will not be over 80 per cent of last year, although east Texas does show quite a nice crop this year.

Ohio, Indiana, and Illinois also report more honey than a year ago when the crop was short, in fact their production will probably run about 130 per cent of last year, with Iowa reporting considerably less than in 1939. In Missouri the crop is better, particularly in the northwestern sections and along the Mississippi River. Arkansas reports less honey and is in a much similar position to Louisiana.

The northern states which were heavy producers in 1939 are quite below this year. Michigan will only have 75 per cent, as will Wisconsin, of what last year's crop was. Some sections of southern Minnesota and north central Minnesota report considerably more honey than last year, but the Red River Valley is far short of a year ago and the total crop for Minnesota will likely not be over 50 to 60 per cent of last year. North Dakota may reach about normal and South Dakota similarly.

Reports vary considerably in Nebraska, but with the heavy fall crop, eastern Nebraska will have considerably more than last year whereas western Nebraska is quite short. Kansas and Oklahoma report much more honey than last year, about 125 per cent. Western and central and northern Colorado are far better than last year, having almost 50 per cent more. However, this is made up by shorter crops in Wyoming, Montana, and Idaho. These three states report about 75 per cent of last year. New Mexico is slightly above normal and Arizona quite heavy, almost 175 per cent of 1939 which was short. In Utah the crop will range 150 per cent of last year and in Nevada at least as much as in 1939. Oregon is about normal, but Washington will fall far short of 1939 with only 50 per cent of last year's crop. Southern California has at least as much as last year, and we would judge about 25 per cent more, whereas central and northern California are in much better condition having almost fifty per cent more honey than last year and some reporters claiming 500 per cent of their crop last year which was quite short.

Condition of Bees

Almost universally bees are going into winter this year in far better condition than a year ago. In a few instances there may have to be some feeding done, but the fall crop has been fairly good in most areas and the earlier flows were sufficiently good to build up a strong colony of young bees for winter. All in all, we believe condition of bees is at least 20 per cent better than it was last year.

Prices in Bulk

There has been very little tendency for prices to advance over what was reported a month ago. However, the demand has proved fairly brisk and if anything there is a slightly rising tendency, particularly in the eastern sections of the country with even a little appreciation in California, although amber honey prices are still as low as 2¾ to 3 cents in that state.

The bulk of the quotations offered beekeepers on honey in large lots is 4 cents to 4½ cents f. o. b. their station, cans furnished. A number of sales have been made at 5 cents, cans furnished, and some to others at 5½ cents where the beekeeper furnishes the cans. These prices are all f. o. b. shipping stations. Buckwheat honey is far ahead of last year in price, about 5½ cents f. o. b. New York now being offered. It is undoubtedly the fact that the eastern states are far short of a year ago in honey crop and if California had not had a heavy crop this year, undoubtedly there would have been an appreciation in price before this time. Comb honey prices range in carload lots about $2.50 a case.

Jobbing Demand

Jobbing demand is better than it was a year ago by far, where buyers had almost their own way in purchasing honey. Not only are Canadian buyers looking around for carloads of honey for shipment in view of the short crop in Canada, but domestic buyers are also already purchasing honey, whereas a year ago there was a buyer's market throughout. This does not mean that we have had an appreciation in price, but we have had more activity on the part of buyers in jobbing ways, and we believe this will evidently be reflected in the price before many months go by.

Local Demand

Of course, with decidedly improved jobbing demand, we also find a decided appreciation in demand locally. This is particularly true in the eastern sections of the United States and in the manufacturing areas where added employment undoubtedly allows the consumer more funds with which to buy such articles as honey.

Summary

All in all, we feel that beekeepers should not be discouraged with the low prices at which the honey market is starting and there is really no reason for such an extremely low price except a carryover from last year, and the fact that packers and large buyers are vying to see who can buy honey at the lowest figures.

With the Canadian honey crop short and a very large possibility that exports of honey will be possible through the British Isles again this year, we look not only for a stronger domestic demand, but also for a demand which will call for honey to be shipped across our northern border. Canadian buyers can well afford to pay from 5 to 5½ cents for honey f. o. b. domestic shipping points and still deliver to British Isles on basis of last year.

Canada last year imported over one million pounds of honey from the United States. We look for an increase in that amount during the present season unless there is a decided change in world conditions. At any rate this possibility, together with the bolstering of demand in a domestic way most certainly should not make for the continuation of the extremely low prices which have been the rule during the past 18 months.

We do not want to leave the impression of over optimism. We do look for a moderately gradual strengthening market except in amber grades where the heavy California crop will undoubtedly mean difficulty in an appreciation inside of several months at least.

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201 North Wells St., Chicago
Reference: First National Bank of Chicago

SUGGESTED PRICES F. O. B. SHIPPING POINT	Compared to 1939 %		Offers on White Extracted	C/L White Extracted	C/L Amber Extracted	C/L No. 1 Comb	10 Lb. Retail Extracted	5-Lb. Retail Extracted	10-Lb. Bulk Comb	5-Lb. Bulk Comb	1-Lb. Jar Retail	Comb Section Retail	Comb-Case to Grocer
NEW ENGLAND	80			7	5½		1.60	.90			.25	.25	4.75
NEW YORK	100		5½	6-6½	5½	3.50	1.25	.65			.20	.20	4.00
NEW JERSEY, DELAWARE MARYLAND	125						1.40	.85			.25	.25	4.00
WEST VIRGINIA AND VIRGINIA	90						1.20	.65	1.40	.75	.20	.20	3.80
NORTH CAROLINA, SO. CAROLINA	140				5½		1.20	.65	1.40	.75	.20	.20	
GEORGIA	110					2.70	1.00	.60	1.30	.70	.20	.20	
FLORIDA	100		5	5½	5		1.10	.60	1.30	.70	.20	.20	
ALABAMA, MISSISSIPPI	70						1.10	.60	1.40	.75	.20	.20	3.75
KENTUCKY, TENNESSEE	60						1.10	.60	1.40	.75	.20	.20	3.60
ARKANSAS, LOUISIANA	70						1.00	.55	1.20	.65	.20	.20	
TEXAS	100		4½	5	4½		1.00	.55	1.20	.65	.20		
NEW MEXICO, ARIZONA	120			5	4		.90	.50	1.10	.60	.20	.20	
PENNSYLVANIA	100			6	5	3.25	1.10	.60			.20	.20	
OHIO	125		4½-5	5¼	4	3.25							
MICHIGAN	70		4½-5	5-5½	4½	3.25	1.00	.55			.20	.20	
WISCONSIN	100		4½	5-5½	4½	3.25	1.00	.55			.18	.20	3.50
MINNESOTA	60		4½	5-5½	4½	3.25	1.00	.55			.18	.20	
INDIANA	120		4½	5½	4½	3.00	1.10	.55			.18	.20	3.50
IOWA, MISSOURI	80		4½-4½	5-5½	4¼		1.00	.55			.18	.20	3.50
ILLINOIS	120		4½	5-5½	4¼		1.00	.55					
NORTH DAKOTA, SO. DAKOTA	100		4½	5-5½	4½		.90	.50			.18	.20	3.50
NEBRASKA	110		4½	5-5½	4½	3.00	1.00	.55			.18	.20	3.50
KANSAS, OKLAHOMA	125		5	5-6	5	3.00	1.00	.55	1.10	.60			
WYOMING, COLORADO	70		4½	5-5¼	4½		.90	.50					3.50
MONTANA	65		4¼	5-5¼	4½		.90	.50					
IDAHO	70		4¼	5-5½	4½	2.50	.90	.50					
UTAH, NEVADA	110		4¼	5-5½	4½		.90	.50					
WASHINGTON, OREGON	100		5	5½	5		1.00	.55					
CALIFORNIA	130		4½	5-5¼	3½-4½	2.40	.90	.50					
BRITISH COLUMBIA	120		8	9-10			1.25	.65					
ONTARIO AND QUEBEC	70		8-9	9-10			1.30	.70					
SASKATCHEWAN AND ALBERTA	90		8-9	9-10			1.30	.70					
MANITOBA	70		8-9	9-10			1.20	.65					

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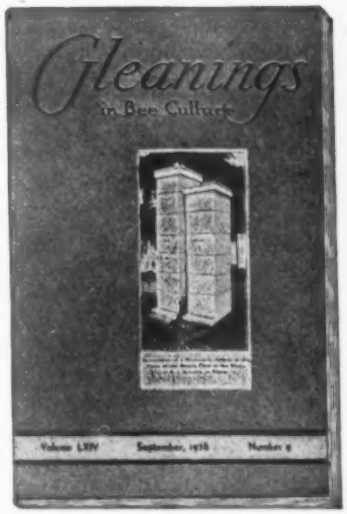

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THE POSTSCRIPT

Beekeepers will note with interest the fact that Wendell Willkie grew up on a diet liberally supplied with honey. Writers who just now are searching for every possible fact of public interest in his past life are calling attention to the family habit of buying honey in sixty pound buckets when Wendell was a boy at home.

♦

Elmer Carroll, of Lansing, Michigan, comments on the double foundation suggested by E. C. Hudiberg in September Postscript. He reports that after trying it he has concluded that you can't fool the bees. When it was used with nothing between, the bees cut holes in it and wedged the sheets apart. When used with wax paper or cellophane between the sheets the bees removed the foreign material.

♦

There have been many inquiries for seed of the sainfoin and especially for the Persian form which was mentioned in the article by Edward Kellner some months ago. L. Johannessohn, of Beltrami, Minnesota, writes that he secured seed of this plant from the Experiment Station, at Kompolt, Hungary. The firm in New York from which we secured our seed has apparently gone out of business because the war interfered with the importation of goods from central Europe.

♦

Mrs. Pellett is one of those persons who is very sensitive to stings. She nearly lost her life from a bee sting more than twenty years ago. Since then we have been extremely careful to avoid having her near the bees and she was not stung again until the last day of September this year when packing to return to Hamilton after a summer at the Iowa farm. Again she was in serious condition until the doctor arrived and gave her an injection of andrenalin. I have often been stung dozens of times within a few minutes with little inconvenience. It is hard to explain her unusual sensitivity.

♦

A letter of special interest to me comes from Morley Pettit now of Tifton, Georgia. He recalls our first meeting in Saint Louis about twenty-six years ago and comments on the changes since that time.

Pettit was then at the head of the official beekeeping work in Ontario and a pioneer in educational work in the beekeeping field. If my memory is correct it was Pettit who suggested the apiary section of the Association of Economic Entomologists. The annual meeting of that group has become the most important means of presentation of scientific material relating to bee culture.

♦

After becoming well known in educational circles through his work in the college of agriculture, Morley Pettit turned to commercial honey production with equal success. Of late he has engaged in the package shipping business in Georgia. Certainly the years have brought many changes for him. On many occasions I have met strangers who mistook me for him because of the similarity of our names. He has apparently suffered for some of my sins because the names Pettit and Pellett are so much alike and I have benefitted from some of his successes for which I was in no way responsible.

♦

There are so many beemen whose names begin with the letter P that those who do not know us well seem to get hopelessly confused. Park and Parks are both officially connected with beekeeping, Park in Iowa and Parks in Texas. Paddock is also connected with the Iowa work, and Parker heads the work in Kansas. Phillips, who was formerly in the Department of Agriculture at Washington and is now at Cornell University, has escaped some of this confusion because of the greater prominence of his position.

♦

T. J. Mannex, of New Zealand, tells us that in the past he found a few colonies that stored honey during unfavorable weather in spring when other bees were at the point of starvation. By using these queens as breeders he has developed a strain which is sufficiently active practically to eliminate the necessity for feeding at that uncertain period. Incidentally he reports that they are very resistant to disease also. Last season he had only five cases of American foulbrood among 2,500 colonies in a district where disease is prevalent.

♦

In our experience bees most resistant to disease are also likely to prove to be good honey gatherers. Never in all my experience have I seen such a crop of honey gathered by a single colony as was produced in 1940 by one of our original resistant stocks which has remained free from disease since its recovery from the test inoculation in 1935. From this hive we removed about 600 pounds of surplus and left about 100 pounds for winter stores.

♦

A reader asks about the wild bees mentioned on this page. There are hundreds of different species of wild bees ranging in size from the big bumblebees down to those less than half the size of the house fly. They do not form large colonies but in most cases are solitary and so are seldom noticed. Where they are plentiful they serve a useful purpose in the pollination of flowers. Honeybees are commonly spoken of as wild bees when they escape and find a home in a hollow tree or cavity in some wall. My reference was to the solitary bees and not to the honeybee.

♦

Crimson clover is often reported as a good source of nectar in the southern states but is not hardy in the north. Xavier Widmer, of Medford, Oregon is planting ten acres in that mild climate in the hope that it will attract the bees at the time that the orchards are sprayed and prevent loss from poisoning.

♦

Our comment on alcohol and bee sting brings the following from Dr. Bodog Beck: "Referring to alcohol and bee venom, it is a well known fact that although they are chemically antagonistic, with regard to physiological effects they are similar; namely both are stimulants. Alcohol chemically destroys bee venom and the reverse. Because the alcoholics resort to alcoholic liquor for the stimulating effect, it stands to reason that beekeepers being often stung by bees and being thus stimulated they do not need the stimulating effect of alcohol. That is the reason beekeepers, as a rule, are water drinkers."

♦

It is interesting to learn that patients treated for rheumatism by the injection of bee venom in Dr. Beck's practice acquire a decided craving for honey. In his book, "Bee Venom Therapy," he quotes from the John Hopkins Hospital Bulletin, a report of a case of a woman who, having been unable to eat honey, developed a craving for it after having been stung.

♦

Reports from widely separated localities indicate a growing interest in Birdsfoot Trefoil, **(Lotus corniculatus.)** We are told that the bees are visiting the blossoms freely and indications are that beekeepers will benefit by the general cultivation of this crop. As yet the reports are insufficient to determine the extent of the yield or the quality of the honey. The plant seems to thrive in many places where alfalfa or the clovers do poorly.

♦

We have had some enthusiastic reports of the yellow spider flower or golden Cleome from those who tried it for the first time this year. Our planting was very late due to the fact that flea beetles destroyed the early plants. It requires a long season to reach full maturity, when it is a thing of real delight for the beeman.

FRANK C. PELLETT.